

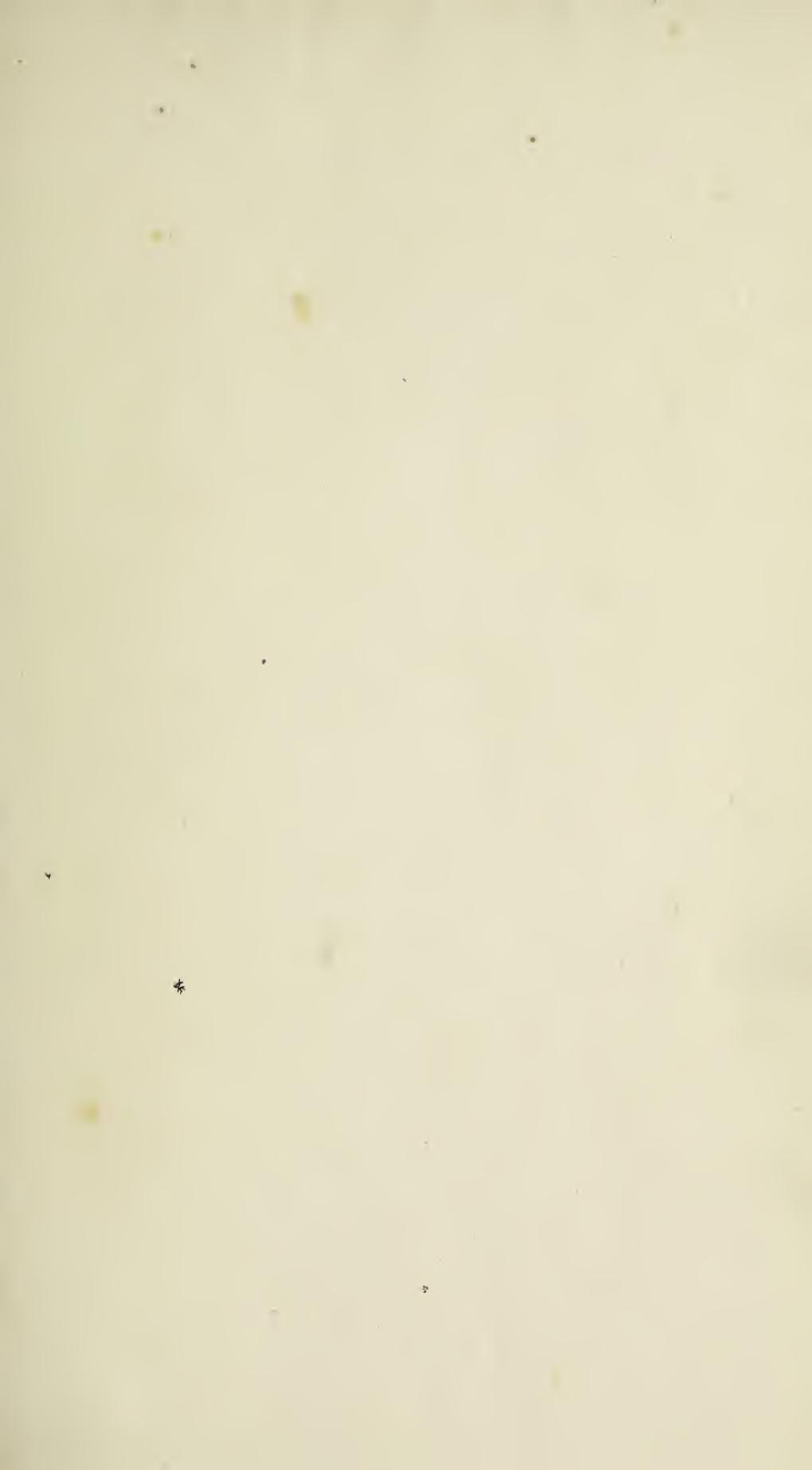
9106/B

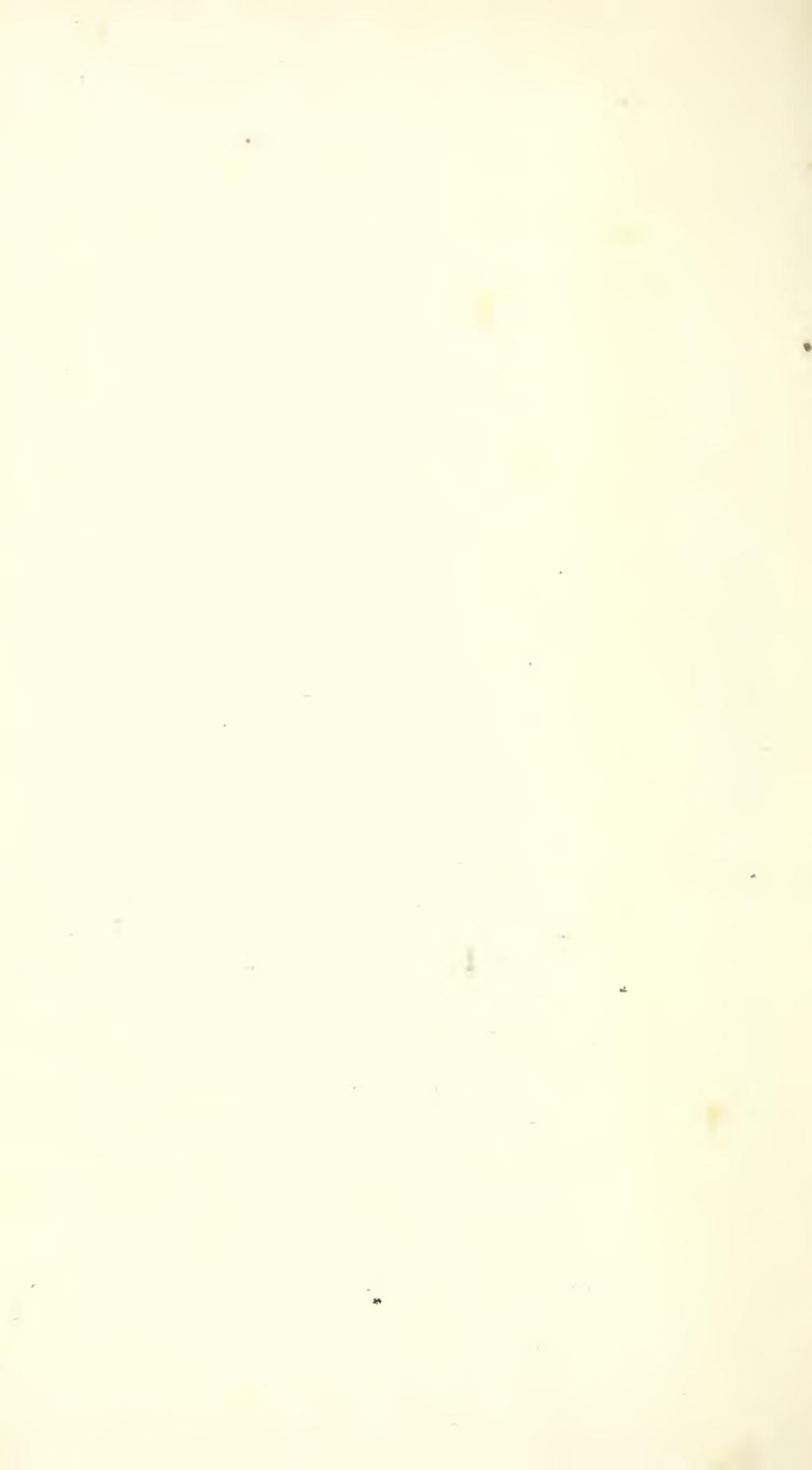
N. xix 12

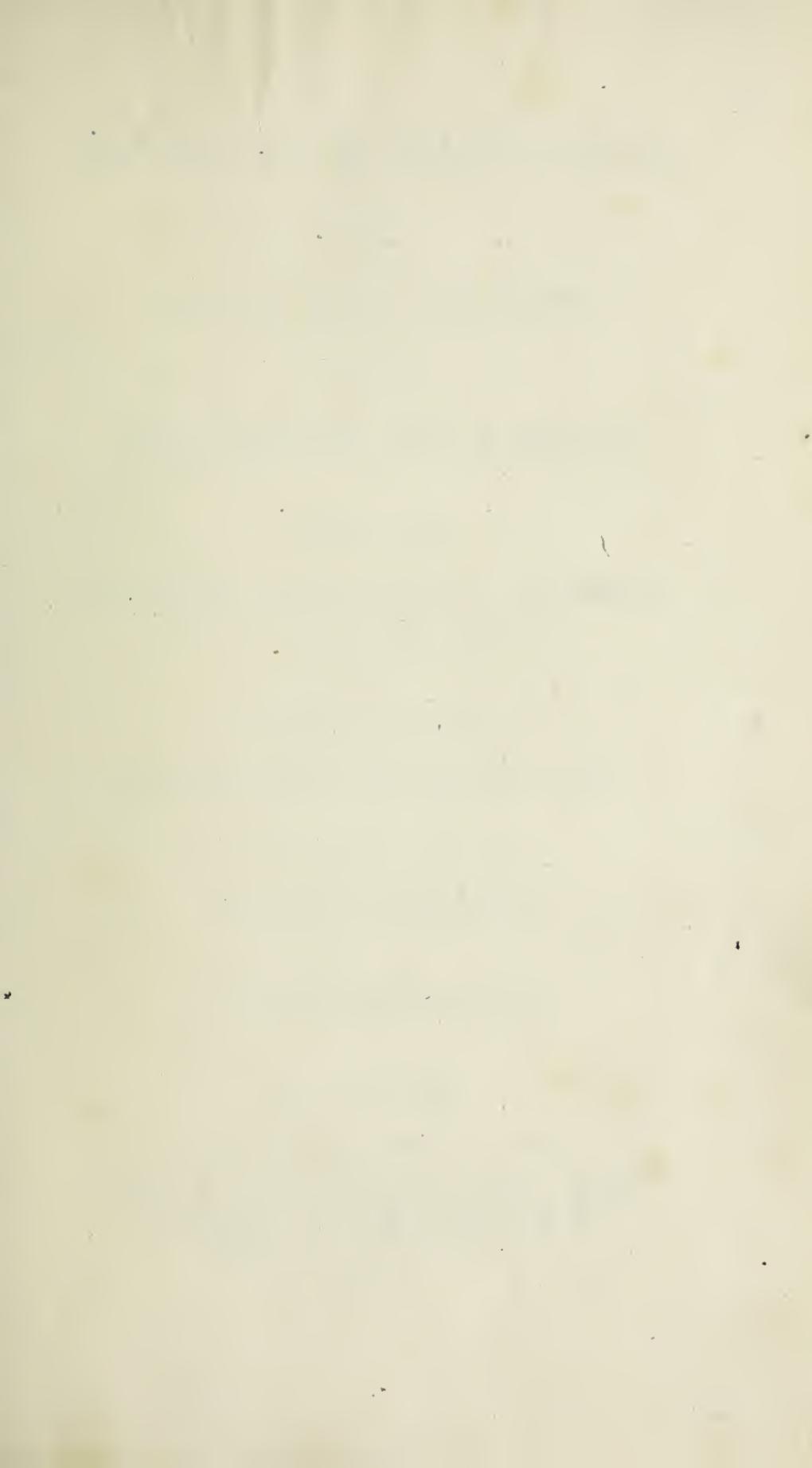


02101624837

APP 5-









Digitized by the Internet Archive
in 2016 with funding from
Wellcome Library

https://archive.org/details/b28775557_0001

41041

ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

B R I T I S H P L A N T S,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS,
AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES SOWERBY.

L O N D O N:

PRINTED FOR THE AUTHOR, BY J. DAVIS,

And sold at No. 2, Mead Place, near the Asylum; by Messrs.
WHITE, Booksellers, Fleet Street; JOHNSON, St. Paul's
Church Yard; DILLY, in the Poultry; and by all
Booksellers, &c. in Town and Country.

M.DCC.XC.

—“QUOS IPSA VOLENTIA RURA
SPONTE TULERE SUA.”—

VIRG.



TO THE

RIGHT HONOURABLE

GEORGE,

LORD VISCOUNT LEWISHAM, F.R.S. AND F.L.S.

THIS VOLUME

IS MOST RESPECTFULLY INSCRIBED

BY

HIS LORDSHIP'S

MUCH OBLIGED AND

MOST OBEDIENT

HUMBLE SERVANT,

JAMES SOWERBY.

P R E F A C E.

THE prevailing taste for botanical pursuits, and the encouragement afforded in this country to every work which tends to advance them, have given rise to the present undertaking, and make any apology for it unnecessary. It remains with the public to judge of the merit of the work, and to decide whether it should be prosecuted or not. It may not however be improper to say something of its intention and plan.

A knowledge of the plants of our own country is in many respects preferable to that of exotics, as it can be much more completely attained, and is on several accounts more directly useful. Nor are the humble productions of our fields and woods deficient in real beauty, elegance, or singularity of structure, in which respects some of them indeed vie with the most favourite exotics. Not to mention the indispensable necessity for those, who are occupied with the rural œconomy of any country, to be well acquainted with its native vegetables; the study of them, as a mere amusement, has this eminent advantage over exotic botany, that it doubles the pleasure of every journey or walk, and calls forth to healthy exercise the bodily as well as the mental powers; while persons who know no such pursuits either sacrifice their health to sedentary employments, or are content to submit, without an object, and without enjoyment, to toil and labour for exercise, and for exercise alone.

As this study then is so much to be recommended,
and

and has of late indeed been so generally approved and pursued, it seems extraordinary that among the many merely descriptive works on British Plants, no successful attempt has hitherto been made to illustrate them by original figures on a cheap and compendious plan ; more especially as the advantage of good figures, in promoting the knowledge of plants, is so generally allowed. It is true indeed that most of our native vegetables are already figured in some book or other, and those books are referred to by our systematic writers ; but, not to mention the frequent mistakes in such citations, the study of English botany on this plan could not be attempted without a collection of all the books, however voluminous and expensive, that treat of European plants : so that, whatever might be thought of a very large and expensive work of figures of all the plants of Great Britain, it is hoped the present reasonable and commodious publication will by no means be considered as a burthen on the public.

To avoid that imputation as much as possible, the author has in his letter-prefs declined copying what others have said ; and means in general only to refer to the most popular and useful descriptive and systematic books, as the *Species Plantarum* of Linnæus, and the different *Floras* of Hudson, Curtis, Lightfoot, Withering, Relhan, Ray, &c. He will spare no pains to have his botanical characters and synonyms accurate ; and as he is so fortunate as to have access to the first sources of information, he hopes this part of his plan will be executed so as to deserve approbation, and also that in his remarks he may sometimes have an opportunity of presenting his readers with matter altogether new.

C Y P R I P E D I U M calceolus.

*Ladies Slipper.*G Y N A N D R I A *Diandria.*

GENERIC CHARACTER. Nectarium large, inflated, and hollow.

SPECIFIC CHAR. Roots fibrous; leaves ovato-lanceolate, growing on the stem: flower with four petals.

SYN. *Cypripedium Calceolus.* *Linn. Sp. Pl.* 1346.

Huds. Flo. An. 392. *Withering's Bot. Arr.* 1001.

Calceolus Mariæ. *Raii Syn.* 385.

IF the beauty or scarcity of a plant, or the singularity of its structure, entitle it to our notice, the Ladies Slipper certainly merits the first place in a work on British plants. It may indeed be reckoned the queen of all the European Orchidæ. Accordingly it has not only been admired and cherished by the scientific botanist, but it has among gardeners always been sold at the highest price of any British vegetable.

It is confined to some remote and little frequented woods in the North of England. In a garden this plant is cultivated with more ease than many of its tribe. If dried with care it will preserve the colour of its leaves and flowers much better than plants of the Orchis kind generally do.

We have no other species of this genus wild in England, nor indeed in Europe, except the rare *Cypripedium bulbosum* of Lapland, which few botanists have ever seen.



VERONICA spicata.

Spiked Speedwell.

DIANDRIA Monogynia.

GENERIC CHAR. *Cor.* inferior, of one petal, four-cleft; lower division narrowest. *Capsule* two-celled.

SPECIF. CHAR. Spike terminal; leaves opposite, crenated, obtuse; stem ascending, undivided.

SYN. *Veronica spicata.* *Linn. Sp. Pl.* 14. *Huds. Fl. An.* 3. *With. Bot. Arr.* 8. *Relb. Cantab.* 3.

V. spicata recta minor. *Raii Syn.* 279.

VERONICA spicata is one of those plants which wherever they grow are found in abundance, and yet are by no means common in England. It is plentiful on Newmarket Heath, and in that neighbourhood, on a chalky soil, from whence our specimen was taken. When cultivated it becomes much more luxuriant.

This species is not unfrequent abroad in alpine situations; and its bright blue flowers agreeably enliven the barren places where it generally grows.

The orifice of the tube of the corolla is bearded in this Veronica, which we do not find remarked in authors. *Flora Danica*, plate 52, represents no such character; but indeed that figure is so incorrect, it is impossible to be certain whether it be *V. spicata*, or one of the species nearly allied to that plant.



J. Sowerby del. Nov. 1, 1790.

E R I C A vagans.

*Cornish Heath.**OCTANDRIA Monogynia.*

GENERIC CHAR. *Cor.* of one petal. *Cal.* four-leaved, inferior. *Filaments* inserted into the receptacle. *Antheræ* bifid. *Capsule* four-celled.

SPECIF. CHAR. Antheræ beardlefs, prominent : corolla bell-shaped ; style prominent ; leaves in fours ; flowers one on each foot-stalk.

SYN. *Erica vagans.* *Linn. Mant.* 2. 230.

E. multiflora. *Huds. Fl. An.* 166.

E. didyma. *With. Bot Arr.* 400.

E. foliis Corios multiflora. *J. B. Raii Syn.* 471.

THIS Heath, although very abundant in Cornwall, has not yet been found in any other part of England, nor has its Linnæan name been hitherto determined. Mr. Hudson referred it to the *multiflora* of Linnaeus, which it resembles in appearance, but is a very distinct species. Dr. Stokes first doubted its being that plant, and gave it a new name, *didyma*, from the twin antheræ, a circumstance however by no means peculiar to this species. We therefore retain the Linnæan denomination, though not a very expressive one ; as we are assured by Dr. Smith that it is undoubtedly the plant intended by Linnaeus, and which he called *vagans* (wandering), because found in so many different and remote countries, as Africa, France, and other parts of the South of Europe ; to which we now add our own kingdom, as a further apology for the name.

The Cornish Heath is not unfrequent in the botanic gardens about London, where it grows freely, and looks well. In Cornwall it is as common with white as with red flowers.

We have not been able to meet with a figure of this plant in any author.



J. Sowerby del'd Novr. 1790.

P R I M U L A vulgaris.

*Common Primrose.**P E N T A N D R I A Monogynia.*

GEN. CHR. *Capsule* 1-celled, superior. *Tube* of the *Corolla* cylindrical, mouth pervious. *Stigma* globose.

SPE C. CHR. Leaves dentated, wrinkled ; border of the corolla flat.

SYN. *Primula vulgaris.* *Huds. Fl. An.* 83.

P. acaulis. *With. Bot. Arr.* 204.

P. veris var. γ . *Linn. Sp. Pl.* 205. *Fl. Dan.* t. 194.

P. veris vulgaris. *Raii Syn.* 284.

LINNÆUS, ever desirous of avoiding too great a multiplication of species, considered the Primrose, Oxlip and Cowslip, as varieties only of each other ; but most botanists have differed from him in this particular. Some have gone so far as to reckon them three distinct species. It seems however most agreeable to nature to consider the first and last as distinct, though much more nearly akin than an inexperienced observer would suppose, and the rim of the corolla being concave in one and flat in the other, is a sufficiently good specific character.

The Oxlip (*P. veris β .* of *Linn. Fl. Dan.* t. 434.), if not an hybrid production between the other two, may perhaps with the greatest propriety be reckoned a variety of the Primrose, from which it principally differs in having an elongated common foot-stalk, like the Cowslip ; whereas the common foot-stalk of the Primrose is so short as to be concealed among the leaves, as Linnaeus and Dr. Stokes have observed. This plant is found every where in woods, thickets, and pastures, flowering in April and May. Its blossoms have an agreeable fragrance.

“ The Primrose pale and Violet blue,” being the chief ornaments of a season which every pastoral poet delights to celebrate, have been more frequently honoured in verse than most other wild flowers.



J. Sowerby. del. Jan. 4, 1794

P R I M U L A veris.

*Common Cowslip.*P E N T A N D R I A *Monogynia.*

GENERIC CHAR. *Capsule* one-celled, superior. *Tube* of the *corolla* cylindrical, mouth pervious. *Stigma* globose.

SPECIFIC CHAR. Leaves dentated, wrinkled ; border of the corolla flat.

SYN. *Primula veris.* *Huds. Fl. An.* 84. *Linn. Sp. Pl.* 204. *Fl. Dan. t.* 433.

P. officinalis. *With. Bot. Arr.* 203.

P. veris major. *Raii Syn.* 284.

IN speaking of the Primrose we have already mentioned its affinity to this plant ; one circumstance is however remarkable in the Cowslip, a contraction towards the middle of its leaves, which is not seen in the former. The Cowslip is nearly as common, and flowers at the same time : it prefers a clay soil, and generally an open situation.

Cowslip flowers are fragrant, and make a pleasant wine, approaching in flavour to the Muscadel wines of the South of France.

The leaves of this plant and the Primrose are said to afford nourishment to silk-worms : but those animals are so very delicate, and the quality of their silk is so apt to be injured by the most trifling causes, that they are seldom found worth cultivating as an article of commerce, unless fed with the best and most healthy leaves of the White Mulberry (*Morus alba*). It is however an object worthy of the curiosity of those who breed them for amusement, to try what kinds of food may best be substituted in the place of their natural aliment, when a backward spring retards the growth of the Mulberry leaves.



J. Sowerby del'd Jan^o 1791.

P R I M U L A farinosa.

*Bird's-Eye Primrose.*P E N T A N D R I A *Monogynia.*

GENERIC CHAR. *Capsule* one-celled, superior. *Tube* of the *corolla* cylindrical, mouth pervious. *Stigma* globose.

SPECIFIC CHAR. Leaves crenated, smooth; border of the corolla flat.

SYN. *Primula farinosa.* *Linn. Sp. Pl. 205.* *Huds. Fl. An. 84.* *With. Bot. Arr. 204.* *Fl. Dan. t. 125.*

Verbasculum umbellatum alpinum minus. *Raii Syn. 285.*

W E T pastures and little rills on the sides of mountains in the north of England, especially in Westmoreland, are the favourite situations of this elegant plant, nor can our British Flora boast many more beautiful productions. Of late years it has been frequently introduced into gardens. The powdery whiteness of its stalks and the backs of its leaves, resembles that of the Auricula. This circumstance, from whence the trivial name *farinosa* is taken, is not represented in the Flora Danica.

The habit of this Primula most nearly approaches that of the genera Androsace and Aretia, two very elegant tribes of plants found in alpine situations on the continent, and much sought after by botanists. In those genera however the tube of the corolla is oval, not cylindrical, and its orifice more or less closed with glands; whereas in all the Primulas that part is open, and only slightly crenated. Nevertheless these three genera, and even *Cortusa*, might perhaps be united without any great violence to nature.



T. Sowerby del'd Jan. 9 1870.

P A R I S quadrifolia.

*Herb Paris.**O C T A N D R I A Tetragynia.*

GENERIC CHAR. *Cal.* four-leaved. *Petals 4*, tapering.
Berry four-celled.

SPECIFIC CHAR. none, as we know but this species of
the genus.

SYN. *Paris quadrifolia.* *Linn. Sp. Pl.* 526. *Huds. Fl.*
An. 172. *With. Bot. Arr.* 416. *Relb. Cantab.* 163.
Herba Paris. *Raii Syn.* 264.

THIS plant is a native of shady woods in most parts of England, though very rare in some counties, and not very common in any. Its appearance is singular, and not beautiful. The number four remarkably prevails in its composition, and it is generally constant to that number, though sometimes found with three leaves and sometimes with five. The stem is always simple.

The origin of its name is uncertain. Some etymologists derive it from *par*, a pair, on account of the leaves of this plant growing in pairs*: but this would be more applicable to any plant with two opposite leaves, for the leaves of Paris are verticillated. Linnæus therefore more wisely reckons it among the Latin generic names of unknown derivation.

The same author says, in *Flora Lapponica*, its roots may serve instead of ipecacuanha as an emetic, but must be given in twice the quantity. The berry is narcotic, and the whole plant has always been esteemed poisonous.

* *Ambrofini Phytologia*, 506.



J. Hornerby del. Feb 1. 1791.

CHELIDONIUM Glaucium.

*Yellow Horned-Poppy.**POLYANDRIA Monogynia.*

GENERIC CHAR. *Cal.* two-leaved. *Cor.* of four petals. *Pod* linear, one-celled.

SPECIFIC CHAR. Flower-stalks single-flowered ; leaves embracing the stem, sinuated ; stem smooth.

SYN. Chelidonium Glaucium. *Linn. Sp. Pl.* 724.
Huds. Fl. An. 229. *With. Bot. Arr.* 548.

Papaver corniculatum luteum. *Raii Syn.* 309.

FROM one annual root arise several branched and wide-spreading stems, each about two or three feet long, so that a single plant occupies a considerable space. The seed vessels are also much longer than could be expressed in our figure, measuring frequently ten or twelve inches. The large and numerous flowers, which, although of short duration, succeed one another in great abundance during most part of the summer, make a fine contrast with the sea-green “dew-bespangled” leaves, and are a great ornament to the sandy shores where this plant grows. It is not uncommon on the English coast, and grows frequently even within reach of the spray of the sea. The shores of Norfolk and Suffolk produce it in abundance.

The whole plant is foetid, and of a poisonous quality. It is said to occasion madness.

Whether this be the true *Glaucium* of Dioscorides is much to be doubted. Among the unpublished plates, engraved from the celebrated manuscript of that author, in the Imperial library, an impression of which is in the Linnaean collection, is a figure of his plant ; but not sufficiently perfect to ascertain what it is ; although certainly more like our *Chelidonium Glaucium* than *Argemone mexicana*, which Caspar Bauhin took for the *Glaucium* of Dioscorides.



S. Lovelley del. Feb. 7, 1791.

S A X I F R A G A opositifolia.

*Purple Saxifrage.**D E C A N D R I A Digynia.*

GEN. CHAR. *Cal.* in five segments. *Cor.* of five petals. *Capsule* with two beaks, one-celled ; *seeds* numerous.

SECIFIF. CHAR. Leaves opposite, imbricated all along the stem, the upper ones ciliated. Flowers solitary, terminal.

SYN. *Saxifraga opositifolia.* *Linn. Sp. Pl.* 575. *Huds. Fl. An.* 180. *With. Bot. Arr.* 432. *Fl. Dan.* t. 34. *S. Alpina ericoides, flore cœruleo.* *Raii Syn.* 353.

A NATIVE of the highest alpine rocks, especially of Snowdon and Ingleborough, where it is “doomed to blush (for the most part) unseen” on the first melting of the snow. In the latter part of summer the plant acquires a dark mahogany colour, like that of some species of Jungermannia, the young leaves only remaining green. The beauty of its flowers has caused it to be cultivated in pots for ornamenting rooms in spring, mixed with Hyacinths, Narcissuses, &c. with which it makes an agreeable variety.

The figure in *Flora Danica* represents this plant in a dwarf state : ours is taken from a cultivated, and therefore more luxuriant specimen, resembling the appearance of the plant as it is found on the Alps of Switzerland.

N. B. In the specific character of No. 5 (*Primula veris*), for flat read concave.



J. Sowerby delt. & sculpsit 1821.

O R C H I S conopsea.

*Aromatic Orchis.**G Y N A N D R I A Diandria.*GEN. CHAR. *Nectary* a spur behind the flower.

SPEC. CHAR. Bulbs palmated. Nectary very slender and acute, longer than the germen; lip in three parts. Two of the petals spreading very much.

SYN. *Orchis conopsea.* *Linn. Sp. Pl.* 1335. *Huds. Fl. Ann.* 385. *With. Bot. Arr.* 977. *Rehb. Cantab.* 335.*Palmata rubella cum longis calcaribus rubellis.* *Raii Syn.* 381.

THIS Orchis is found in wet pastures and bogs, in June and July. Its flowers are highly fragrant, approaching in smell to the red clove pink; their colour varies from deep purplish red, to flesh colour, and even white. Its leaves are long, and narrower than those of any other English species.

The specific name Conopsea alludes to a fancied resemblance of the flowers of this plant to the genus of insects called Conops by Linnæus. In many other species of this tribe the flowers much more evidently resemble insects.



J. Sowerby del. & M. 1791.

THALICTRUM minus.

*Lesser Meadow-rue.**POLYANDRIA Polygynia.*

GEN. CHAR. *Cal.* none. *Petals* four or five. *Seeds* naked and beardless.

SPEC. CHAR. Leaves in six divisions. Flowers nodding.

SYN. *Thalictrum minus.* *Linn. Sp. Pl.* 769. *Huds. Fl. An.* 238. *With. Bot. Arr.* 569. *Rehb. Can-tab.* 210. *Raii Syn.* 203.

A NATIVE of chalky and lime-stone soils in various parts of England; but being only found in such, it is by no means a common plant.

The essential character of this species, as given by Linnaeus, is not at all clear: but it appears he meant that the leaves are compounded in a sixfold order, which is generally near the truth; not (as some have understood it) that the *foliolæ* are in six divisions, which can never be the case, unless by accident, as they have a central lobe, and consequently an odd number of divisions.

The purple tips of the leaves, and a blueish bloom on the stem, are pointed out by Linnaeus as characteristics of this plant; and he also mentions it as flowering rather early. With us it is seldom seen in flower before July.



J. Sowerby del. Mar. i 1791

C A M P A N U L A Trachelium.

Nettle-leaved Bell-flower.

P E N T A N D R I A Monogynia.

GEN. CHAR. *Cor.* bell-shaped, closed at the bottom by valves bearing the stamina. *Stigma* three-cleft. *Capsule* inferior, opening by lateral pores.

SPEC. CHAR. Stem angular. Leaves on foot-stalks. Calyx fringed. Flower-stalks three-cleft.

SYN. Campanula Trachelium. *Linn. Sp. Pl.* 235. *Huds. Fl. An.* 96. *With. Bot. Arr.* 218. *Rehb. Cantab.* 94.

Campanula vulgarior foliis Urticæ, vel major et asperior. *Raii Syn.* 276.

FOUND in woods and hedges in a gravelly soil in various parts of Great Britain. The root is perennial; and the flowers, which are occasionally found white, appear in the middle of summer. The stem is from two to three feet high, and the harsh rough leaves look very like those of a nettle.

Of all our British species of Campanula, except the *rotundifolia*, this is the most common: the rest may be reckoned among the rarer plants.

Fig. 1. Represents a stamen on its valve, separate.

--- 2. Seed-vessel.



G L A U X maritima.

Black Salt-wort.

P E N T A N D R I A Monogynia.

GEN. CHAR. *Cal.* one-leaved, campanulate. *Cor.* none.*Capsule* superior, one-celled, five-valved, and five-seeded.

SPEC. CHAR. Only one species known.

SYN. *Glaux maritima.* *Linn. Sp. Pl.* 301. *Huds. Fl. An.* 101. *With. Bot. Arr.* 246. *Raii Syn.* 285.

NOTHING can be more common than this pretty little plant in salt marshes. It enlivens large tracts of the dreary and wretched situations where it is found, with its purplish flesh-coloured or whitish flowers, which are produced in great abundance in the summer, standing solitary, and with scarcely any foot-stalks, in the bosoms the leaves.

The root is perennial and creeping.

The whole plant is succulent and salt to the taste. Dr. Withering remarks that cows eat it.



A. Somerby delin. Spicil. 1. 1791.

POLEMONIUM cæruleum.

Jacob's Ladder.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* in five segments. *Stamina* standing on five valves which close the tube. *Stigma* three-cleft. *Capsule* three-celled, superior.

SPEC. CHAR. Leaves pinnated. Flowers erect. Calyx longer than the tube of the corolla.

SYN. *Polemonium cæruleum.* *Linn.* *Sp. Pl.* 230.
Huds. Fl. An. 89. *With. Bot. Arr.* 215.

P. vulgare cæruleum. *Raii Syn.* 288.

THIS, although very common in gardens, is one of the plants most rarely found wild in this country. Botanists of the last century gathered it in the romantic and mountainous country about Malham Cove, in the north of Yorkshire, where it still grows, as well as in some parts of Derbyshire (*Withering*).

A variety with white flowers is very common, sometimes even from the same root as the blue ones (*Linnæus*) ; the faint purplish blue seen in the flowers of this plant, being that which of all colours is most apt to vary to white.

Its stems rise to the height of eighteen or twenty inches, seldom more. The root is fibrous and perennial.

This plant is absurdly enough reckoned among the Valerians by the old authors, with which it has not the least affinity either in appearance, botanical characters, sensible qualities, or medical virtues.



Edition. 1st April 1891

TRIENTALIS europaea.

Chick-weed Winter-green.

HEPTANDRIA Monogynia.

GEN. CHAR. *Cal.* seven-leaved. *Cor.* in seven segments, regular and flat. *Berry* dry.

SPEC. CHAR. Leaves lanceolate and entire.

SYN. *Trientalis europaea.* *Linn. Sp. Pl.* 488. *Huds. Fl. An.* 160. *With. Bot. Arr.* 384.

Alfinanthemos. *Raii Syn.* 286.

FOUND in dry woods and turf Heath in the north of England, more plentifully in Scotland, as it is a plant chiefly confined to the most northern regions.

Linnæus in *Flora Lapponica* appears to have been quite enchanted with this plant, possibly from its being the only Lapland genus of his seventh class, and which therefore delighted him in an extraordinary degree, as completing the uniformity of his system. It must be confessed however that the number of its stamens is very inconstant.

The specific character in *Species Plantarum*, as given above, is now superfluous, this being the only known species of *Trientalis*, since the *Trientalis Capensis* of *Sp. Pl.* first edition, has been made a separate genus by the name of *Septas*.

We shall in future leave a blank, in place of the specific character, when the plant in question is the only one of its genus.



T. Stenocarpus diffusus 1791

O R C H I S *militaris.**Military Orchis.**G Y N A N D R I A* *Diandria.*GEN. CHAR. *Nectary* a spur behind the flower.SPECIF. CHAR. Bulbs undivided. Lip of the *nectary* five-cleft, rough with points : horn obtuse. Petals confluent.SYN. *Orchis militaris.* *Linn. Sp. Pl.* 1333. *Huds. Fl. An.* 384. *With. Bot. Arr.* 974.

THE few of the English Orchises which can come in competition with the species here represented in point of elegance. From a fancied similitude in the *nectarium* to the shape of the human body, it has obtained its popular title of Man-Orchis. In the colour of its flowers it varies considerably: the *nectarium* indeed generally preserves an uniformity of colour in most individuals; but the petals in some are of a much deeper tinge than in others, being frequently of a pale ash colour; at other times of a brownish cast, and in some individuals even of a deep brownish purple, which variety is usually called the blackish-flowered Man-Orchis. This species flowers in the beginning of June, and grows generally on dry and chalky soils, and in the neighbourhood of woods. It is much less common than several others of this genus. As there is another species of British Orchis which is generally known by the title of Man-Orchis (and which will hereafter be figured in the present work), we have thought it better to apply the term Military to this species, taken from the Latin name, which has been given on account of the resemblance which the upper part of the flower bears to a helmet.



J. Sowerby del. May 1, 1791.

N A R C I S S U S pseudo-narcissus.

*Common Daffodil.**H E X A N D R I A Monogynia.*

GEN. **CHA.R.** *Petals* six, equal. *Nectarium* funnel-form, one-leaved. *Stamina* within the nectarium.

SPEC. **CHA.R.** Spatha one-flowered. *Nectarium* bell-form, erect, curled, and equalling the ovate petals.

SYN. *Narcissus pseudo-narcissus.* *Linn. Sp. Pl.* 414.
Huds. Fl. An. 181. *With. Bot. Arr.* 342.

THE *Narcissus pseudo-narcissus*, or common Daffodil, may be considered as one of the most beautiful of the native plants of this kingdom. It grows chiefly in damp situations. The name Pseudo-narcissus, or False Narcissus, was given to this species, in order to prevent its being confounded with the True *Narcissus* of the ancients, or *Narcissus Poeticus*. In the descriptions of rural poetry it has long been celebrated, and seldom fails to obtain an honourable mention amongst the opening beauties of the spring. There is an exotic species of this genus which extremely resembles the present; in that species however the petals have a more expanded appearance, and the whole plant is considerably larger. To this may be added, that in our present species the alternate petals are somewhat smaller. The figure here given we have copied from a most elegant drawing presented by Richard Anthony Salisbury, Esq. a gentleman eminently distinguished for the accuracy of his botanical researches.



J. Sowerby del. May 1. 1791

O R C H I S *ustulata.**Dwarf Orchis.**G Y N A N D R I A Diandria.*GEN. CHAR. *Nectary* a spur behind the flower.

SPEC. CHAR. Bulbs undivided. Lip of the nectary four-cleft, rough with points ; horn obtuse, petals distinct.

SYN. *Orchis ustulata.* *Linn. Sp. Pl.* 1333. *Huds. Fl. An.* 384. *With. Bot. Arr.* 973.

THE Little Orchis figured on this plate has obtained its trivial name of *ustulata*, from the remarkable colour of its flowers, which appear on a cursory view, and especially before they are fully expanded, as if scorched or blackened by heat. When viewed narrowly they are by no means destitute of beauty ; the upper part of the flower being of a purple brown, while the lower part or nectarium is of a clear white, sometimes slightly tinged with purple, and speckled with dark brown points. It frequently happens that the flowers are somewhat more thickly or closely set than in the specimen here figured ; but this is a circumstance which varies much in different individuals. The *Orchis ustulata* occurs only on dry and chalky soils, and flowers in June.



I. Sowerby del. & May. 1. 1791.

G A L A N T H U S nivalis.

*Snowdrop.**HE X A N D R I A Monogynia.*

G E N . C H A R . *Corolla* of six petals, three of which are smaller than the rest, and emarginated. *Stigma* simple.

S P E C . C H A R

S Y N . *Galanthus nivalis.* *Linn. Sp. Pl.* 413. *Huds. Fl. An.* 140. *With. Bot. Arr.* 340.

ON the authority of Mr. Hudson and Dr. Stokes, the Snowdrop is now admitted into the list of British plants, although not described as such by Ray. Whether originally a native or not, it is now found in a wild state in many different situations, such as orchards, grassy meadows, groves, and thickets. Dr. Stokes, whose accuracy and extensive information none who peruses the *Botanical Arrangement of British Plants* can doubt, is particularly exact in asserting that he has gathered it remote from all traces of buildings or gardens.

No plant is more generally cultivated, or more cordially welcomed as the herald of approaching spring. It frequently pierces through the unmelted snow, which it rivals in whiteness, and remains uninjured by a season, during whose inclemency most vegetable productions lie dormant. Who can read the following charming lines on the Snowdrop, by Mrs. Barbauld, without admiration ?

“ As nature’s breath, by some transforming pow’r,
“ Had chang’d an icicle into a flow’r.—
“ Its name and hue the scentless plant retains,
“ And winter lingers in its icy veins.”

Our figure represents the entire plant drawn from a garden specimen, it not being easy to obtain a perfectly wild one. Annexed are the parts of fructification separate, viz. 1st, the stamens and pistillum (the petals being cut off); next the style and germen alone, and an anthera magnified in two different positions.



S. Sonnerby del. June 1. 1791.

GENTIANA Pneumonanthe.

Marsh Gentian, or Calathian Violet.

PENTANDRIA Dignia.

GEN. CHAR. *Cor.* of one petal. *Capsule* superior, one-celled, two-valved, with two longitudinal receptacles.

SPEC. CHAR. Corolla bell-shaped, five-cleft. Flowers on foot-stalks. Leaves linear.

SYN. *Gentiana Pneumonanthe.* Linn. Sp. Pl. 330.
Huds. Fl. An. 102. Witb. Bot. Arr. 261.

G. palustris angustifolia. Raii Syn. 274.

WE are indebted for the wild specimen here figured of this rare and beautiful Gentian to the Rev. Mr. Charles Sutton, B.D. of Norwich, who gathered it on Stratton Strawles Heath, a few miles from that city, the very place in which it was found by the amiable Stillingfleet many years ago. It usually prefers a wet turfey soil, and flowers in August.

Mr. Sutton remarks that the leaf varies in figure from *linear* to almost *spatulate*; that the antheræ are united till the capsule swells, and forcibly separates them; and that after a wet spring the plant is found much more luxuriant, and bearing five, six, or seven flowers, instead of one or two.

Such a gigantic specimen appears to have occasioned Linnaeus to define it *corollis oppositis*, having *opposite corollas*, or rather *flowers*; but we have omitted this in our specific character, as tending to mislead. The connection of the antheræ is full as remarkable as that of Lobelia, and more so than in Viola; both which, on account of such an adhesion, are placed in the class Syngenesia: but the inconstancy of this character, except in *compound flowers*, seems to authorise the abolition of the order Syngenesia Monogamia altogether.



J. Somerby del. June 1. 1794.

ORNITHOGALUM luteum.

*Yellow Star of Bethlehem.*HEXANDRIA *Monogynia.*

GEN. CHAR. *Cor.* of six petals, erect, permanent, from about the midway spreading. *Filaments* alternately broader at the base.

SPEC. CHAR. Stalk angular, bearing two leaves. Flower-stalks in an umbel, undivided.

SYN. Ornithogalum luteum. *Linn. Sp. Pl.* 439. *Huds. Fl. An.* 143. *With. Bot. Arr.* 347. *Raii Syn.* 372.

FLOWERS in March and April, in woods and pastures, but in very few parts of England. Near Oxford it has been found in plenty, and in some parts of Yorkshire, from whence this specimen was communicated by R. A. Salisbury, Esq.

The floral leaves are ciliated with fine white hairs, of which the radical one (which is almost always solitary) is destitute. The antheræ, before they burst, are oblong; afterwards they become remarkably shortened, and almost round, but didymous, as represented at the bottom of our plate. The style is triangular. The petals, always of a pale green externally, assume that colour entirely as they wither, and become closed round the seed-vessel.



J. Sowerby del. June 1. 1791.

O R C H I S bifolia.

*Butterfly Orchis.**G Y N A N D R I A Diandria.*GEN. CHAR. *Nectary* a spur behind the flower.SPEC. CHAR. Bulbs undivided. Lip of the *nectary* lanceolate and entire, the horn very long. Outer petals spreading.SYN. *Orchis bifolia.* *Linn. Sp. Pl.* 1331. *Huds. Fl. Ann.* 382. *With. Bot. Arr.* 967. *Rehb. Cantab.* 331.*Orchis hermaphroditica bifolia.* *Raii Syn.* 380.

IN meadows and pastures throughout most parts of England, but seldom in great plenty. The flowers appear about the beginning of June, and are highly fragrant, especially in an evening. Their pale greenish white colour, without any mixture of red, is unusual in this genus. The leaves are large, and of a bright unspotted green, like those of lily of the valley.

The synonym of Ray above quoted seems to agree best with our figure and the usual appearance of the plant, though cited as a variety by Mr. Hudson; the *Orchis alba bifolia minor calcari oblongo* of Ray's *Synopsis*, which is smaller, and flowers later, being considered in the *Flora Anglica* as the original species. This is well figured in *Flora Danica*, t. 235, which is our principal reason for figuring the other.



J. Sowerby del'd July 1. 1791.

S C I L L A verna.

Vernal Squill.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* of six petals, spreading, deciduous.*Filaments* of equal thickness throughout.SPEC. CHAR. Root solid. *Corymbus* hemispherical, with few flowers. *Bracteæ* lanceolate, obtuse. Leaves linear, channelled, numerous.SYN. *Scilla verna*. *Huds. Fl. An.* 142. *With. Bot. Arr.* 348. *Aiton Hort. Kew. V.* 1. 445.*S. bifolia*. *Lightf. Fl. Scot.* 181. *Fl. Dan.* t. 568. *Hyacinthus*, No. I. *Raii Syn.* 372. (The synonyms false.)

THIS is a maritime plant found among rocks on the western coasts of Wales, in the Isle of Man, and in the Hebrides. Our specimen was produced in the Museum garden, under the care of Mr. Dickson, from a bulb brought from the west of England. The plant appears in its wild state to be less luxuriant. It flowers in April.

Mr. Hudson first proved this to be distinct from the Linnæan *Scilla bifolia*; but we cannot help thinking the synonyms he has cited belong rather to *Scilla Italica* Linn. though very like ours at first sight. It is not without reluctance we dissent from a writer to whom the botany of England is so very much obliged, and whose merit is best known to those who have most deeply studied the same subject.



Edwards's Bot. Edy. 1. 1791.

S C I L L A bifolia.

*Two-leaved Squill.*HE X AND RIA *Monogynia.*

GEN. CHAR. *Cor.* of six petals, spreading, deciduous. *Filaments* of equal thickness throughout.

SPEC. CHAR. Root solid. Flowers nearly erect, without bracteæ. Leaves lanceolate, generally two.

SYN. *Scilla bifolia.* *Linn. Sp. Pl.* 443. *Jacq. Fl. Aust.*

V. 2. II. t. 117.

Hyacinthus stellatus Fuchsii. Ger. em. 106.

WE are induced to present the English botanist with a figure of this plant, not merely because it is what has been confounded, even by Ray himself, with *Scilla verna*, but chiefly because it is a doubtful matter, after all, whether it be not likewise a native of Britain. Our authority for saying so is Buddle's Herbarium, preserved in the British Museum, and always supposed decisive in such cases, as containing native specimens alone. In that collection is to be seen an indubitable specimen of *Scilla bifolia*, with the synonym in Ray's *Synopsis*, p. 372; but, unluckily, without mention of any particular place of growth. It is moreover marked *Herb. Britt. tab. 67, f. 5*, which refers to Petiver's English Herbal, where a figure of it is to be found, rude indeed, like all those of Petiver, but sufficient to ascertain the plant.

Scilla bifolia grows on the continent in groves and thickets, flowering in the spring. The specimen here figured flowered in a garden, but from whence brought is not known. The leaves are scarcely ever more than two in number; the bracteæ either altogether wanting, or so minute as to be hardly perceptible. Most of the species of this genus are characterized *radice solida* (with a solid bulb), to distinguish them from *Scilla* *Lilio-hyacinthus*, which has the scaly bulb of a lily, a circumstance which some botanists seem to have misunderstood.



I. Sowerby delt. July 1. 1701.

VERONICA verna.

Vernal Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft; lower division narrowest. *Capsule* two-celled.

SPEC. CHAR. Flowers solitary. Leaves with fingered divisions, longer than the flower stalks, which are shorter than the calyx.

SYN. *Veronica verna.* *Linn. Sp. Pl.* 19. *Huds. Fl. An.* 8. *With. Bot. Arr.* 15. *Rose's Bot. (Appendix)* 444. *t. 2. f. 1.*

FIRST found by the late Sir John Cullum, Bart. in dry sandy fields about Bury in Suffolk, and not yet discovered in any other part of England that we know of. It is an annual, flowering in April and May. From its near resemblance at first sight, especially when luxuriant, to *Veronica arvensis*, it may perhaps have been overlooked for that plant. They are however perfectly distinct.

If Morison's figure, sect. 3. t. 24. f. 21. be intended for *Veronica verna*, as Dr. Stokes suspects, it is a very inaccurate representation of the plant.



Kewerby, doct: Augt: 1. 1791.

V E R O N I C A triphyllus.

Trifid Speedwell.

D I A N D R I A Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft, lower division narrowest. *Capsule* two-celled.

SPEC. CHAR. Flowers solitary. Leaves with deeply fingered divisions. Flower-stalks longer than the calyx.

SYN. *Veronica triphyllus.* *Linn. Sp. Pl.* 19. *Huds. Fl.*

An. 7. With. Bot. Arr. 15.

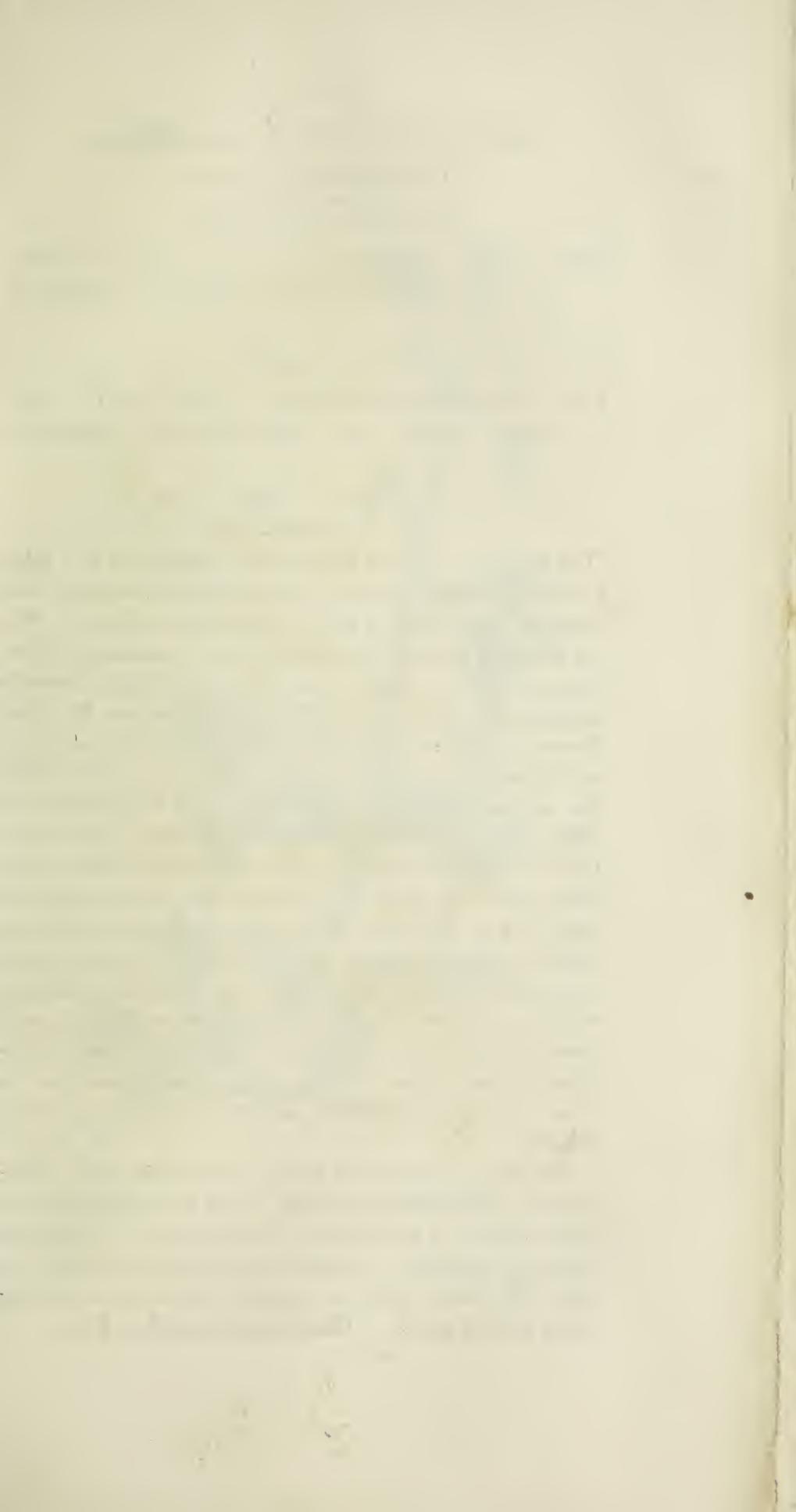
Veronica flosculis singularibus, foliis laciniatis, erecta.

Raii Syn. 280.

FOR the wild specimens here figured of this plant and the preceding, we are obliged to Sir Thomas Cullum, Bart. who gathered them near Bury, and kindly communicated them in a recent state, along with *Holosteum umbellatum*, and several other rare plants, all which will in due time appear in this work. *V. triphyllus* is always much larger, and more diffuse, than the *verna*, its leaves more deeply divided, and their segments more or less obovate: neither is it quite so rare a plant, having been found in sandy fields in various parts of Norfolk and Suffolk. It flowers early, and, like the *verna*, varies much in size, according to the share of nourishment it meets with. Nothing is more common than for young English botanists, in gathering *Veronica hederifolia* with leaves more than usually deeply cut, to think they have found *V. triphyllus*.



J. Sowerby del'd Augt 1 1791.



H O L O S T E U M umbellatum.

*Umbelliferous Chickweed.**T R I A N D R I A Trigynia.*GEN. CHAR. *Cal.* five-leaved. *Cor.* of five petals.*Capsule* one-celled, nearly cylindrical, bursting at the top.

SPEC. CHAR. Flowers in umbels.

SYN. Holosteum umbellatum. *Linn. Sp. Pl.* 130.*With. Bot. Arr.* 132. *Rose's Elements (Appendix),*
445. t. 2. f. 4.Cerastrum umbellatum. *Huds. Fl. An.* 201.

THIS plant was first discovered in England by Mr. John Pitchford, a most accurate and indefatigable botanist, who found it in the spring of 1765, on the walls of Norwich. We are informed it was a long time before this gentleman's discovery met with any credit, some of the first English botanists mistaking this plant for Cerastrum semidecandrium. Mr. Rose however described and figured it, with its proper synonyms, in his Elements of Botany, published in 1775; a work which has eminently contributed to explain and recommend the system and principles of Linnæus in this country. Soon afterwards Mr. Hudson admitted it into the second edition of his Flora, under the genus of Cerastrum, with which it agrees in habit, and to which the number of its stamens and styles are said often nearly to approach. We have not however found the petals so regularly bifid as they are in Cerastrum; nor have we seen more than three stamens, and as many styles, in each flower; though it must be confessed we have found the capsules with five valves. Content with delineating every part as it occurred to us, we leave the matter to the decision of future observers.

The root is fibrous and annual; the whole plant a little glaucous, and remarkably smooth, except some glandular hairs on the stem, at a little distance from the flowers. The petals are occasionally white or reddish, and irregularly notched at the top. The flower stalks are variously divaricated at different stages of their growth. This specimen came from Bury.



I. Sowerby del. & fig. t. 1791

T R O L L I U S europæus.

Globe-flower.

P O L Y A N D R I A Polygynia.

GEN. CHAR. *Cal.* none. *Petals* about fourteen. *Cap-*
sules several, ovate, many-seeded.

SPEC. CHAR. Corolla closed. Nectaries the length of
the stamina.

SYN. *Trollius europæus.* *Linn. Sp. Pl.* 782. *Huds.*
Fl. An. 244. *Lightf. Fl. Scot.* 295. *With. Bot.*
Arr. 580.

Ranunculus globosus. *Raii Syn.* 272.

THIS is one of the most splendid ornaments of groves and thickets in the mountainous parts of Yorkshire and Westmoreland. In the latter it is by no means an uncommon plant, but is collected in abundance, and with great festivity, by the youth of both sexes, about the beginning of June; at which time it is usual to see them return from the woods in an evening laden with its blossoms, with wreaths and garlands of which they deck their doors and cottages, and “make haste to crown themselves with its beautiful buds before they be withered.” The Scottish and Swedish peafants are no less partial to it. See *Lightfoot.*

In the southern parts of England we meet with this plant in gardens only; our specimen is therefore a cultivated one. It has been compared with dried wild ones, and does not in any respect differ from them. The root is fibrous and perennial, and thrives best in a moist shady situation.

In habit and sensible qualities the *Trollius* agrees with the *Hellebores* and *Ranunculus*, but is less acrid than most of them.



T. Bewerby delt. Sept. 1. 1791.

O P H R Y S anthropophora.

*Green Man Orchis.**G Y N A N D R I A Diandria.*

GEN. CHAR. *Nectary* consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Bulbs roundish. Stem leafy. Lip linear, in three divisions, the middlemost elongated and cloven.

SYN. *Ophrys anthropophora.* *Linn. Sp. Pl.* 1343.
Huds. Fl. An. 390. *With. Bot. Arr.* 991. *Relb. Cantab.* 338.

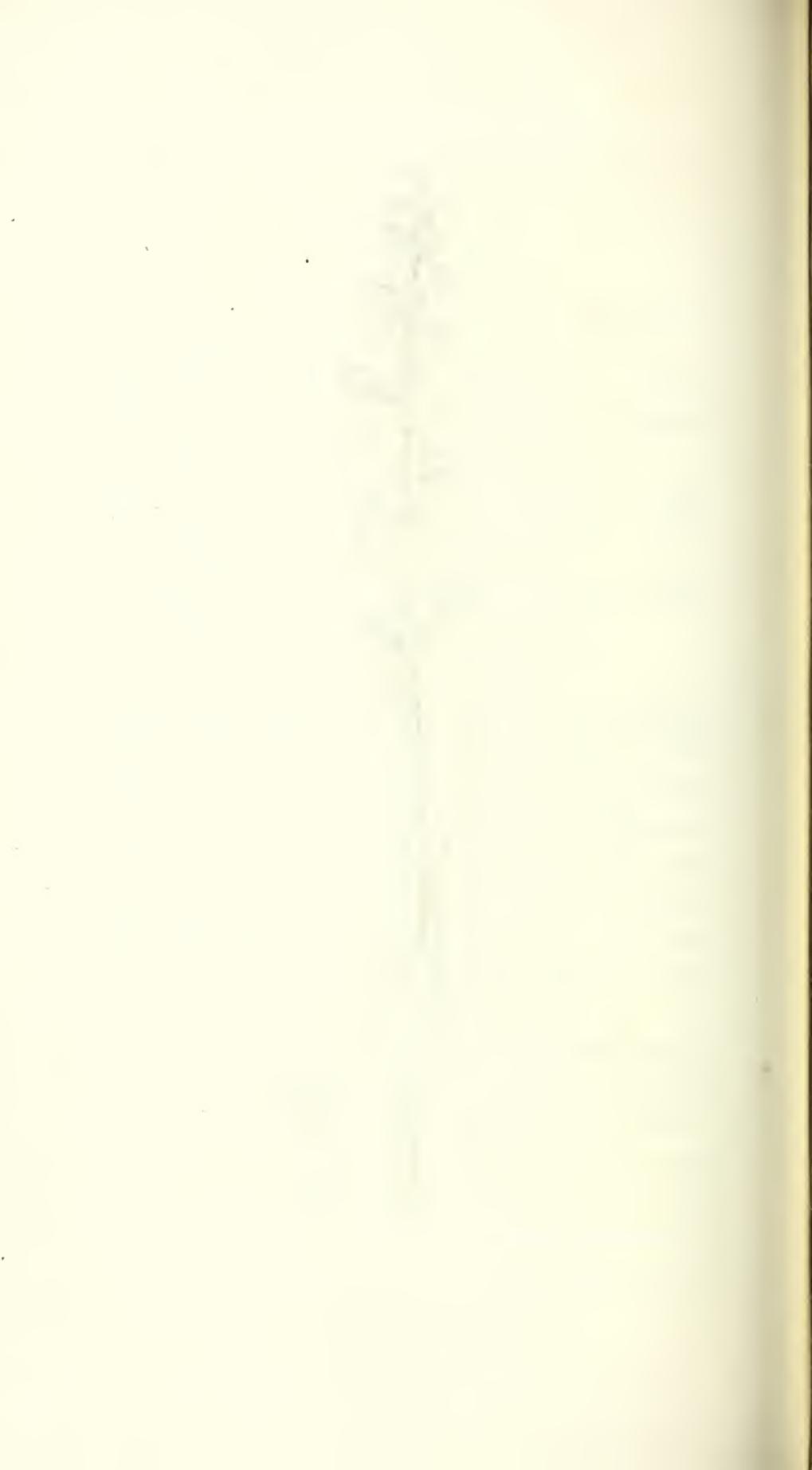
Orchis anthropophora oreades. *Raii Syn.* 379. *Column. Ecphr.* 1. 320. f. 1. good.

F O U N D in chalk pits, hedges, and by road sides in a chalky soil, in various parts of England, very frequently in Kent; flowering in June. It is rather singular than strikingly beautiful in appearance, and chiefly remarkable for the figure of a naked man represented by the lip of its flower; the petals (which are often brownish) forming a kind of cap or helmet to the figure, as in the Military Orchis, fig. 16. The middle segment of the lip, however, is merely bifid, without any small intermediate tooth.

Columna has given a very good figure and description of this *Ophrys* in his *Ecphrasis* above quoted, and claims the honour of being the first who has mentioned it. It has ever since been much celebrated, and is one of those species which Linnæus tells us every body who was curious in plants, when he was at Paris, went from thence to Fontainebleau to see in flower, the neighbourhood of that place abounding with this tribe of plants.



Adamsbury del Sept 1791





V I C I A lathyroides.

*Spring Vetch.**DIADELPHIA Decandria.*

GEN. CHAR. *Stigma* transversely bearded on the lower side.

SPEC. CHAR. Pods sessile, solitary, erect, smooth.
Leaflets six, the lowermost inversely heart-shaped.
Seeds cubic, warty.

SYN. *Vicia lathyroides.* *Linn. Sp. Pl.* 1037. *Jacq.*
Misc. Austr. v. 2. 299. t. 18. excellent. Var. γ .
Huds. Fl. An. 319.

Vicia minima præcox Parisiensem. *Raii Syn.* 321.
Tournef. Inst. 397.
Ervum solonense. *Linn. Sp. Pl.* 1040. *Huds. Fl.*
An. ed. 1. 279.

NO British plant has been less understood than this *Vicia*, inasmuch that we dare not quote any authors except the above, it being altogether doubtful what others intend by their *Vicia lathyroides*; and most English botanists, even Mr. Hudson himself, having confounded it with small varieties of *Vicia sativa*.

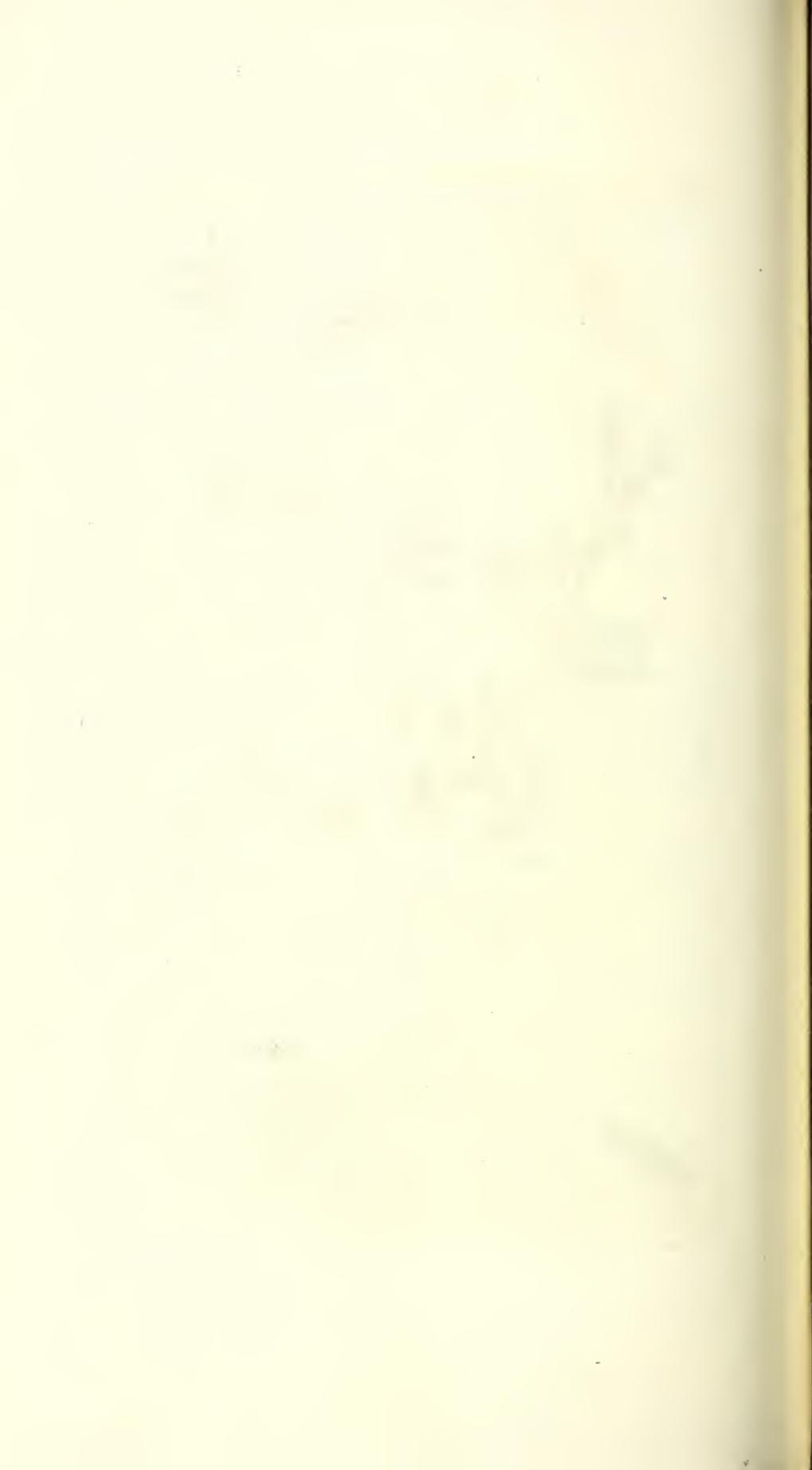
Our plant is found on dry grassy banks, and in fallow fields on a gravelly soil, flowering early in May. The stems are numerous, generally prostrate. The stipulae rarely, if ever, spotted. The seeds cubic, and rough with minute tubercles. The pods are smooth; leaves, stems, and stipulae slightly hairy. There is no doubt of its being a most distinct species, sufficiently distinguishable by its seeds.

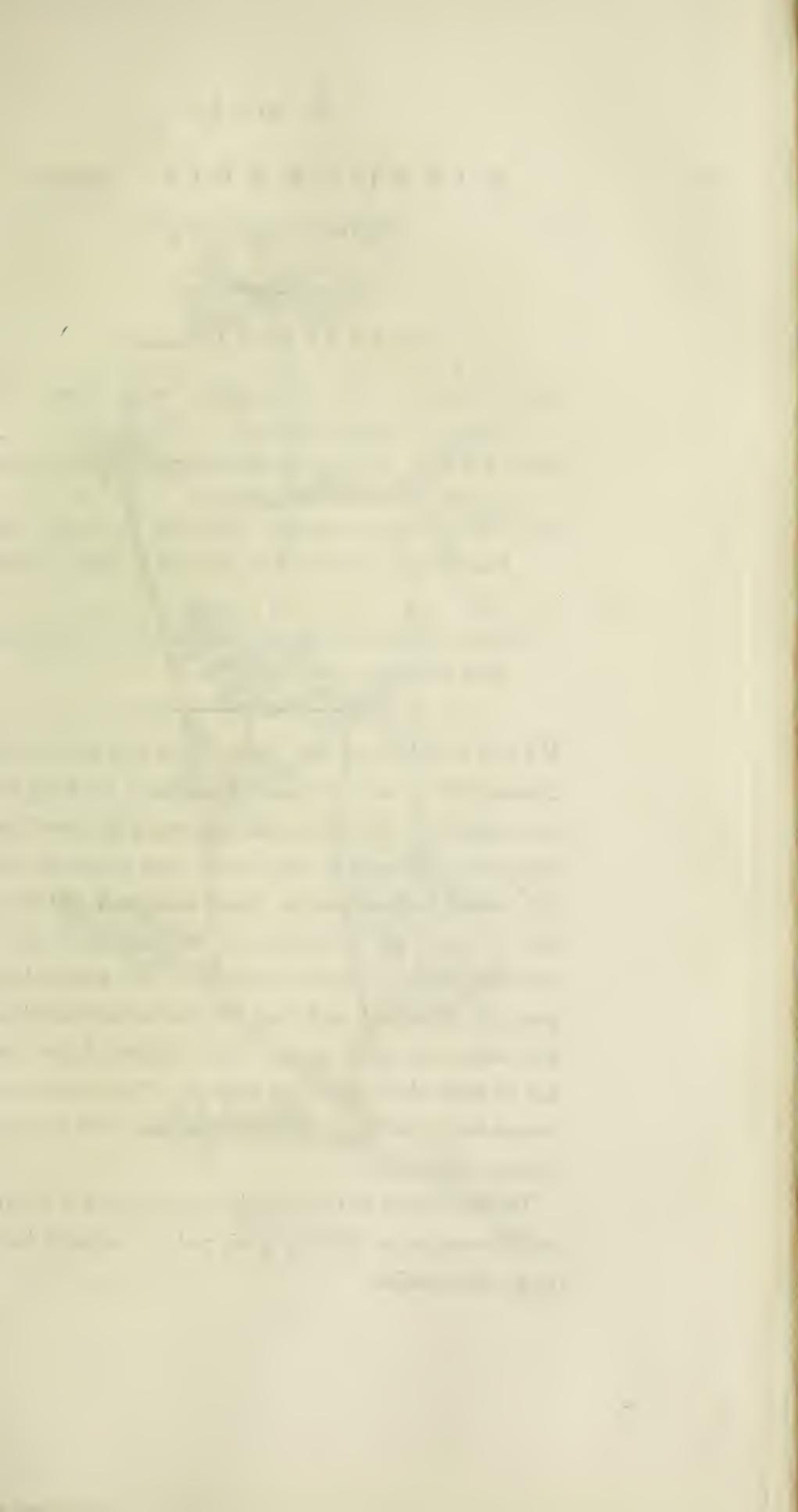
That this is the plant of Tournefort, and consequently *Ervum solonense* of Linnæus, which he took up from that author without having it in his own collection, appears from Tournefort's Herbarium at Paris. That it is the true *Vicia lathyroides* is certain from the Linnæan Herbarium. *Dr. Smith.*

Our specimens were sent from Norwich by Mr. Pitchford, one of the first English botanists who well distinguished this plant. Mr. Dickson has found it in the dry parts of Hyde Park. It is annual, and scarcely to be met with after the month of June. There is a variety with white flowers.



Schinnerly del. Sept. 1791.





H I P P O C R E P I S comosa.

Tufted Horseshoe Vetch.

D I A D E L P H I A Decandria.

GEN. **CCHAR.** *Pod* compressed, with many deep notches in one of its edges.

SPEC. CCHAR. *Pods* pedunculated, clustered, curved, waved in the external margin.

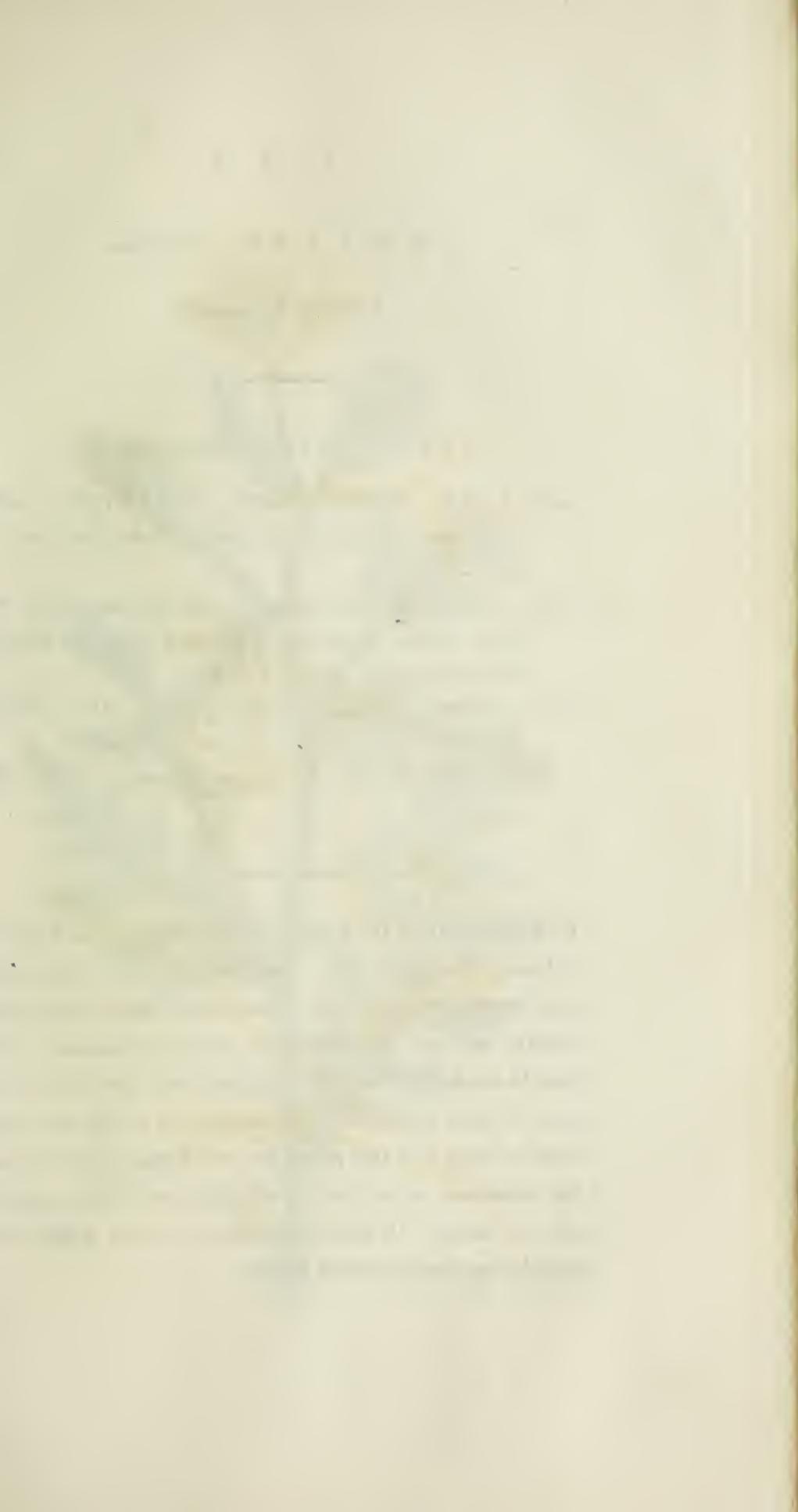
SYN. Hippocrepis comosa. *Linn. Sp. Pl.* 1050. *Huds. Fl. An.* 321. *With. Bot. Arr.* 783. *Relb. Cantab.* 276.

Ferrum equinum germanicum siliquis in summitate.
Raii Syn. 325.

PLENTIFUL on dry chalky banks and hills in Kent, Cambridgeshire, and other parts of England; but being found in no other kind of soil, it is reckoned among the rarer English vegetables. The root is long, woody, and apparently perennial, as most authors make it. Stems numerous, and procumbent. Flowers pale yellow streaked with brown, far less species than those of *Lotus corniculatus*; with which they are generally intermixed, and may therefore be easily overlooked. But when the pods appear, their singular figure cannot fail to strike the most casual observer. The flowers are to be met with from May to August; the pods most part of the summer and autumn.

The descriptions of *Hippocrepis comosa* quoted in the Botanical Arrangement are very good, and all certainly belong to the same species.





S E N E C I O viscosus.

Stinking Groundsel.

S Y N G E N E S I A *Polygamia superflua.*

GEN. CHAR. *Receptacle* naked. *Down* simple. *Calyx* cylindrical, scaly at the base; scales dead at the tip.

SPEC. CHAR. Radius revolute. Leaves pinnatifid, viscid. Scales of the calyx lax, and nearly as long as the calyx itself, which is hairy.

SYN. *Senecio viscosus.* *Linn. Sp. Pl.* 1217. *With. Bot. Arr.* 909. *Huds. Fl. An.* 365. α .
Senecio hirsutus viscidus major odoratus. *Raii Syn.*
 178.

GATHERED by Dr. Smith about the chalk-pits at Dartford in Kent, flowering in July. The root is annual. The whole plant covered with a fetid viscous liquor which retains small insects, dust and light substances in great abundance. The stem is much branched and straggling, not simple and erect as in *Senecio sylvaticus*. The flowers are in all their parts twice as large as in that plant, but much more scattered, and less numerous, as well as of a brighter gold colour, and the calyx is hairy. All these circumstances surely justify us in considering them as distinct species.



Scanned by debt 1.5.1. 1791.

A S P E R U L A *cynanchica.**Squinancy-wort.*T E T R A N D R I A *Monogynia.*

GEN. CHAR. *Corolla* of one funnel-shaped petal.
Seeds two, globose.

SPEC. CHAR. Leaves linear, in fours, except the upper ones, which are opposite. Stem somewhat erect. Flowers four-cleft.

SYN. *Asperula cynanchica.* *Linn. Sp. Pl.* 151. *Huds. Fl. An.* 66. *With. Bot. Arr.* 159. *Rehb. Cantab.* 64.

Rubeola vulgaris quadrifolia lavis, floribus purpureantibus. *Raii. Syn.* 225.

FOUND on dry, chalky, sunny banks, in most parts of England, flowering in the middle of summer. Our specimens came from Dartford. The root is perennial, but does not thrive well in a garden, requiring, probably, like many other plants, its natural shelter of herbage. The stems are mostly procumbent, erect at their extremities only. The leaves very unequal in length, generally in fours, rarely five; blunt, but tipped with a sharp point. The flowers have a great degree of beauty, being white or blush-coloured, elegantly marked with red lines. They have a sweet smell, which, however, like that of Woodroof flowers, is rarely to be perceived. As they dry they become rugged, in which state Linnæus appears to have described them in his *Species Plantarum*.

Dalechampius seems to be the chief authority for the reputation this plant has acquired in the cure of quinsies, from which its name is taken. He says it should be applied externally as well as taken inwardly. It is out of use, as we are now furnished with remedies of more undoubted efficacy in the putrid as well as inflammatory sore throat.



Drawn by J. C. W. 1791

S A T Y R I U M hircinum.

*Lizard Satyrium, or Orchis.**G Y N A N D R I A Diandria.*

GEN. CHAR. *Nectary* an inflated roundish bag behind the flower.

SPEC. CHAR. Bulbs round. Leaves lanceolate. Lip in three segments ; the intermediate one very long, twisted, linear, abruptly jagged at the tip.

SYN. *Satyrium hircinum. Linn. Sp. Pl. 1337. Huds. Fl. An. 386. With. Bot. Arr. 979.*

Orchis barbata fœtida. Raii Syn. 376.

IT is with peculiar pleasure we present the public with so very rare and curious a plant as that which is here figured, and which was drawn from a wild specimen obligingly communicated from the neighbourhood of Dartford by Mr. Lewin, well known by his fine work on British birds. Ever since the time of Ray it has been occasionally met with in that neighbourhood, though no where else in England ; but the greediness of collectors has frequently endangered its total destruction, and in some seasons none can be found in flower. It is the largest English plant of this tribe, frequently attaining the height of three feet, and producing from twenty to sixty or more flowers, which appear in July, and are remarkable for their fetid goat-like smell. The upper part of the lip is downy, and marked with elegant purple spots on a white ground, otherwise the flowers are more singular than beautiful. They dry tolerably well. The plant loves a chalky soil, and shaded situation among shrubs and tall grass.



I. Sowerby del'd Oct 1 1794.

O C T A N D R I A Monogynia.

G E N . C H A R . *Cor.* of one petal. *Cal.* four-leaved, inferior. *Filaments* inserted into the receptacle. *Antheræ* bifid. *Capsule* four-celled.

S P E C . C H A R . Antheræ beardless, included. Corolla ovate. Style included. Leaves alternate, ovate, downy beneath.

S Y N . *Erica daboecii.* *Linn. Sp. Pl.* 509. *Huds. Fl. An.* 166.

Andromeda daboecia. *Linn. Syst. Veg. ed.* 13. 338.
With. Bot. Arr. 425.

Vaccinium cantabricum. *Huds. Fl. An. ed.* 1. 143.
Erica cantabrica flore maximo, foliis myrti subtus incanis. *Raii Syn.* 472.

A L T H O U G H Ray has mentioned this plant as a native of Ireland, he has been frequently suspected of having committed an error. We are at length enabled to confirm his account, having been favoured with fine wild specimens gathered last year on the sides of mountains in the county of Mayo, by Aylmer Bourke Lambert, Esq. of Salisbury. It flowers in June and July, and is frequently cultivated with us in gardens.

The partitions of the capsule being formed from the edges of the valves turned in, instead of being attached to the centre of each valve as in *Andromeda*, has induced Dr. Smith still to consider this as an *Erica* (*See Plant. Icones*, t. 58.), notwithstanding its leaves being most commonly alternate, and its resemblance in habit to the *Andromedas*. Very rarely the leaves are found opposite, or even three together.

Ray tells us in his History of Plants that this is called St. Dabeoc's Heath (from whence the Linnæan trivial name has been corruptly taken), and that the Irish girls gird themselves with its long trailing branches as a protection to their chastity—With what success he unluckily has omitted to inform us.

35



J. Sowerby del'd Oct. 1. 1791.

B O R A G O officinalis.
Common Borage.

P E N T A N D R I A Monogynia.

GEN. CHAR. *Corolla* wheel-shaped : the orifice closed with rays.

SPEC. CHAR. Leaves all alternate. Calyx spreading.

SYN. *Borago officinalis*. *Linn. Sp. Pl.* 197. *Huds. Fl. An.* 82. *With. Bot. Arr.* 196. *Relb. Cantab.* 78.

Borago hortensis. *Raii Syn.* 228.

THE Borage, whose bright blue flowers decorate almost every dunghill and heap of rubbish, is one of those vegetables which, although not originally of British growth, are now so perfectly naturalized as to find a place in every catalogue of our wild plants. It is said to have been brought from the Levant; and was at first cultivated in gardens as a medicinal herb, being reckoned, apparently without reason, one of the four cordial flowers. Hence the old adage,

“ *Ego Borago gaudia semper ago*”—

which Gerarde renders,

“ *I Borage bring always courage*”—

a translation worthy of the elegance of the original. The same author adds from Dodoneus—

“ Those of our time do use the floures in fallads, to exhib^t—
 “ Iarate and make the minde glad. There be also many things
 “ made of them, ued for the comfort of the heart, to drive
 “ away sorrow, and increase the joy of the minde.”

Very light surely were those sorrows that could be so driven away! Yet the Borage flowers were at least innocent, which is more than can be said of many more general remedies for care.

The whole herb is succulent and very mucilaginous, and has a peculiar faint smell when bruised. All the green parts are extremely hispid, with sharp rigid white bristles. The root is scarcely more than biennial with us. The flowers appear in great plenty in the summer months.



I. Sowerby del. Oct. 1. 1791.

P O T E N T I L L A verna.

Spring Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Calyx* in ten segments. *Petals* five.

Seeds roundish, naked, affixed to a small dry receptacle.

SPEC. CHAR. Radical leaves quinate, sharply serrated, blunted at the tips; stem-leaves ternate. Stem reclining.

SYN. *Potentilla verna.* *Linn. Sp. Pl.* 712. *Huds. Fl. An.* 224. *With. Bot. Arr.* 533. *Relb. Cantab.* 197.

COMMUNICATED from the neighbourhood of Bury, in April last, by Sir Thomas Cullum, Bart. It is a native of dry elevated pastures in many parts of Britain, as Gogmagog hills; but escaped the notice of Ray.

The stems are almost prostrate, and spread very far in a circular direction among the grass and other plants. As the season advances they turn red, as well as the leaves; which colour, intermixed with the bright yellow of the flowers, makes a striking contrast; so that it seems wonderful the plant should have been overlooked. Haller observes, that it is a very variable species, and approaches so nearly to many others, that its characters and synonyms are scarcely to be made out.



a b

J. Sowerby del. & sculpsit 1791.

S E R R A T U L A *tinctoria.**Common Saw-wort.**S Y N G E N E S I A* *Polygamia æqualis.*

GEN. **CHR.** *Calyx* nearly cylindrical, imbricated; scales not pungent.

SPEC. **CHR.** Leaves ciliated, lyrato-pinnatifid; the terminal segment largest. Florets all alike.

SYN. *Serratula tinctoria.* *Linn. Sp. Pl.* 1144. *Huds. Fl. An.* 349. *With. Bot. Arr.* 865. *Relb. Cantab.* 303.

Serratula. *Raii Syn.* 196.

THE root is perennial, and somewhat woody. Stem two or three feet high, angular. Lower leaves generally, and sometimes all the leaves, undivided. The whole plant is firm, rigid, and harsh to the touch, but not prickly. The flowers are said to be sometimes white; but this is an uncommon circumstance. This plant is not one of the most frequent: its usual places of growth are grassy pastures in the neighbourhood of woods and thickets; sometimes in hedges. Linnaeus says, it is much used in Sweden as a yellow dye for coarse woollen cloths; whence he gave it the name of *tinctoria*. Materials for that colour are so abundant, and most of them so superior to this, that we believe it is never made use of in England.



Stoverby delt. 1791.

S A X I F R A G A aizoides.
Yellow Mountain Saxifrage.

D E C A N D R I A Digynia.

GEN. CHAR. *Cal.* in five divisions. *Cor.* of five petals.

Capsule with two beaks, one cell, and many seeds.

SPEC. CHAR. Stem-leaves linear, scattered, generally edged with tooth-like ciliæ: radical ones aggregate. Stem decumbent.

SYN. *Saxifraga aizoides.* *Linn. Sp. Pl.* 576. *Huds. Fl. An. ed. 1.* 158.

S. autumnalis. *Huds. Fl. An. ed. 2.* 180. *Lightf. Fl. Scot.* 222. *With. Bot. Arr.* 433.

S.alpina augustofoilio, flore luteo-guttato. *Raii Syn.* 353.

A NATIVE of alpine rills and moist rocks in a black boggy soil; in Scotland and the north of England very plentiful, flowering from June till the end of autumn. The roots creep very far: the stems are almost prostrate in their lower part, and thickly covered with leaves; their flowering extremities grow erect, and the leaves on them are much more scattered, as well as larger. The leaves are edged with such strong and remote ciliæ, that they might almost be called dentated: these ciliæ are, nevertheless, sometimes wanting, whence Linnaeus describes his *S. aizoides* as having naked, and not ciliated leaves. Even his own specimen however (which is certainly the same species as ours) has traces of them; and, in fact, the number and density of these ciliæ are very variable. The flowers, which are terminal, and often form a kind of small corymbus, are extremely beautiful when closely examined; those that appear earliest are most deeply coloured.

Haller and Jacquin, and after them Lightfoot, suppose the Linnaean *S. autumnalis* not specifically distinct from this plant; and Linnaeus himself has thought the hint worth noticing in his *Mantissa* ii. p. 383. Unluckily, his own Herbarium has no specimen to show what he intended by *S. autumnalis*; and it appears he took up the plant from other authors. However this may be, the synonyms of Breynius and Morison quoted in *Sp. Pl.* certainly belong to *S. Hirculus*, and the rest probably to our plant. Dr. Stokes's conjecture (*Bot. Arr.* 434) is perhaps nearest the truth, that Linnaeus's *S. autumnalis* is a ciliated variety of *S. Hirculus*.

We have endeavoured to make a new specific character, tolerably applicable to the plant. We prefer the name of *aizoides*, because it is undoubtedly right, as well as expressive; whereas that of *autumnalis* is not only, as above said, uncertain, but improper for a plant that flowers during most part of the summer.



A. Sowerby del. Oct 21 1791



L I N U M perenne.

*Perennial Flax.**P E N T A N D R I A Pentagynia.*

GEN. CHAR. *Calyx* five-leaved. *Petals* five. *Capsule* with five valves and ten cells. *Seeds* solitary.

SPEC. CHAR. *Calyx* and capsule blunfish. Leaves alternate, lanceolate, entire.

SYN. *Linum perenne.* *Linn. Sp. Pl.* 397. *Huds. Fl. An.* 133. *With. Bot. Arr.* 329. *Relb. Cantab.* 130.

Linum sylvestre cæruleum perenne erectius, flore & capitulo majore, et

Linum sylvestre cæruleum perenne procumbens, flore & capitulo minore. *Raii Syn.* 362.

WE trust to the authority of Mr. Hudson, and the above-mentioned authors who have copied him, in making these two plants of Ray's *Synopsis* varieties of each other. Ray himself hints that he thought them such; and Hudson asserts that he has gathered both from the same root; adding, that in the procumbent variety the stamens are shorter than the styles, in the erect one longer.

Linum perenne is found in the dryest chalk soil of Northamptonshire, Cambridgeshire, and Norfolk. Its strong and knobbed woody root produces a multitude of slender stems, about a foot long, spreading in every direction, but more or less curved upward. Its flowers appear from June to August; they are of a delicate texture, and very elegant blue colour. The calyx, as Dr. Stokes observes, is quite smooth, and each of its leaves marked with five ribs; the middlemost of which is the strongest.



E. Stevens delin. Linnaeanae 1792

M E L A M P Y R U M crifatum.

Crested Cow-wheat.

D I D Y N A M I A Angiospermia.

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compressed, turned back at the margin. *Capsule* two-celled, oblique, bursting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Spikes quadrangular. *Bracteæ* heart-shaped, imbricated, compact, denticulated.

SYN. *Melampyrum crifatum*. *Linn. Sp. Pl.* 842. *Huds. Fl. An.* 269. *With. Bot. Arr.* 638. *Rehb. Cantab.* 240.

Melampyrum crifatum, flore albo & purpureo.
Raii Syn. *286.

COMMUNICATED from Madingley wood, Cambridgeshire, by the Rev. Mr. Sutton.

The species of this genus, although for the most part remarkably elegant when living, are equally remarkable for turning black or brown in drying, so that they make a very poor appearance in a hortus siccus. The kind here figured grows in the borders of woods, or in corn-fields. Its root is annual; stem very much branched and bushy. The spikes of flowers are very ornamental, though less so than those of some other species. The corolla is occasionally purplish, or white marked with yellow and purple. The seeds of this genus have a remarkable resemblance to grains of wheat; on which account, we prefer the old English name to that of *Cow-grass*, given by Dr. Stokes.



J. Sowerby del'd. Decr. 1791.

C A M P A N U L A patula.

Spreading Bell-flower.

P E N T A N D R I A Monogynia.

GEN. CHAR. *Corolla* bell-shaped, closed at the bottom by valves bearing the stamens. *Stigma* three-cleft. *Capsule* inferior, opening by lateral pores.

SPEC. CHAR. Leaves straight; the radical ones nearly oval. Panicle spreading. Calyx denticulated.

SYN. *Campanula patula*. *Linn. Sp. Pl.* 232. *Huds. Fl. An.* 95. *With. Bot. Arr.* 216.

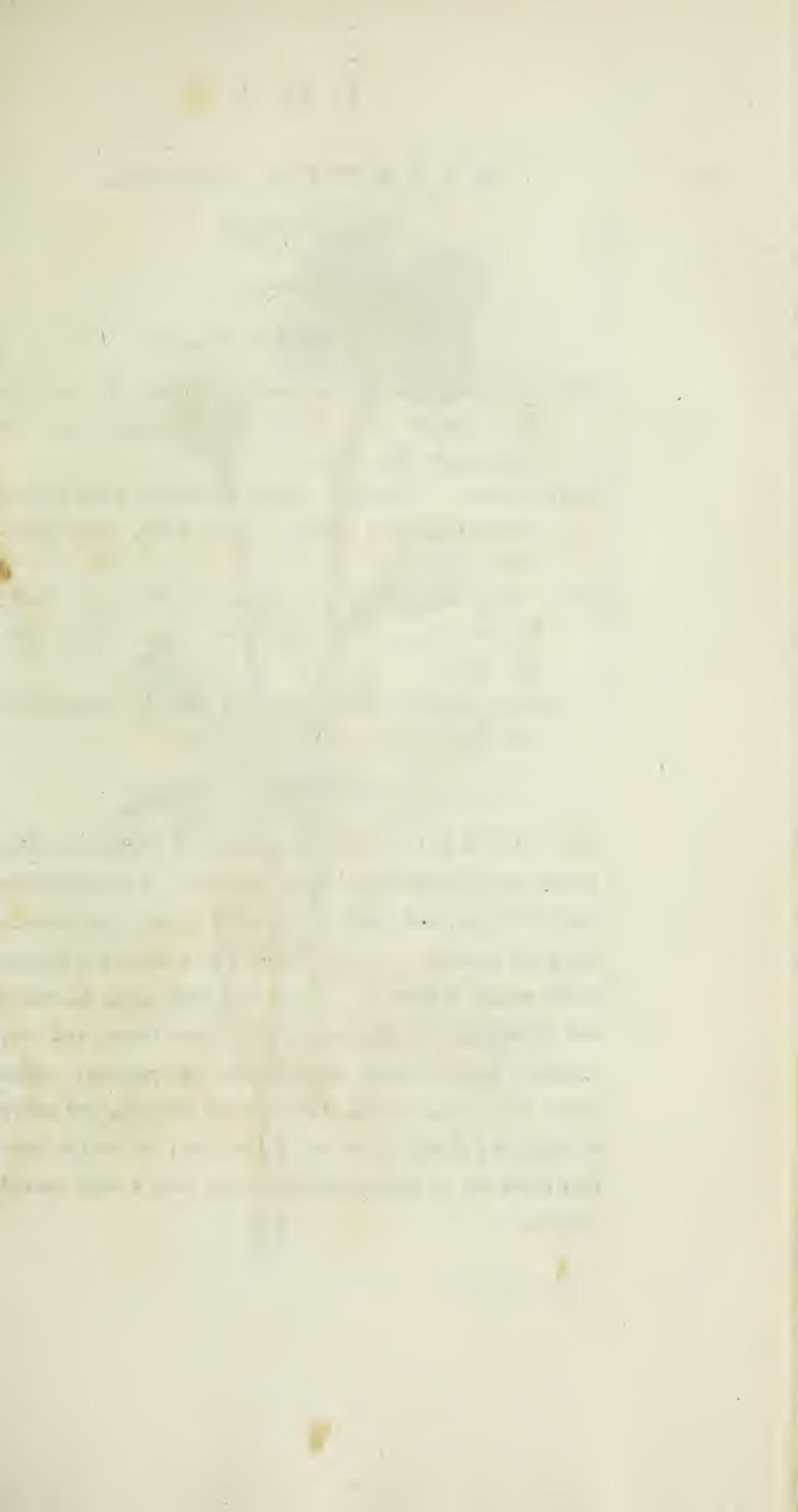
ONE of the rarest English plants, gathered at Cobham in Surry, in the park of the late Lord Ligonier, by Dr. Smith. Mr. Woodward found it in the borders of Buddon wood, Leicestershire; not in the wood itself, as has been commonly reported.

The root is biennial, slender, and white. Radical leaves growing many together, spreading, small, roundish, or oval, soon turning yellowish; those on the stem lanceolate, straight, and even; not undulated, as in *Campanula Rapunculus*. The panicle is also much more spreading than in that species, and the blossoms fewer. The flowers appear in July; and as the herb, though milky and bitter, is frequently eaten down by cattle, side branches spring up, and flower till the winter frosts destroy the root. The corolla is of an elegant form, tapering at the base, but spreading in the rim. This species has no kind of affinity with the common *C. rotundifolia*; some of whose varieties, when their radical leaves are lost, have been occasionally mistaken for it. It escaped the notice of Ray, but is admirably figured by Dillenius in his *Hortus Elthamensis*, tab. lviii. f. 68.



I. Sincro del No. 1-42





P A P A V E R hybridum.

*Mongrel Poppy.**P O L Y A N D R I A Monogynia.*

GEN. CHAR. *Calyx* two-leaved. *Corolla* of four petals. *Capsule* one-celled; discharging its seeds by pores under the stigma.

SPEC. CHAR. Capsules nearly globular, with a very unequal surface, bristly. Stem leafy, many-flowered.

SYN. *Papaver hybridum.* *Linn. Sp. Pl.* 725. *Huds. Fl. An.* 230. *With. Bot. Arr.* 550. *Rehb. Cantab.* 202.

Papaver laciniato folio, capitulo hispido rotundiore.
Raii Syn. 308.

GATHERED in the neighbourhood of Dartford by Mr. Lewin, and near Norwich by Mr. Pitchford. It is occasionally met with here and there in cultivated ground, but never in any great quantity. It has a small annual root, and flowers in the middle of summer. The stem is weak, much branched, and spreading; the divisions of the leaves linear, and very narrow; flowers small, deep crimson, or purplish; pollen bright blue. The bristles of the germen are erect, and nearly as large and strong as on the ripe capsule; but on the latter they stand out in every direction, being only a little curved upwards.



S. Somerby del'd. Jan. 1792

GENISTA tinctoria.

Dyer's Greenweed.

DIADELPHIA Decandria.

GEN. CHA.R. *Calyx* two-lipped, with two teeth in the upper lip, and three in the lower. *Standard* oblong, bent backwards from the rest of the flower.

SE.C. CHA.R. Leaves lanceolate, smooth. Branches round, striated and erect.

SYN. Genista tinctoria. *Linn. Sp. Pl.* 998. *Huds. Fl. An.* 311. *With. Bot. Arr.* 758. *Reb. Cantab.* 269. *Raii Syn.* 474.

IN pastures and on dry barren banks in the borders of fields very frequent. When in flower in the months of July and August, it entirely clothes the places where it abounds with a rich glowing yellow. The root creeps very far, and throws up a great number of stems, very much branched, one or two feet high. The branches are so strongly striated that they might almost be called angular, or rather furrowed. Ray observes in his *Synopsis*, that this plant is but too frequent in pastures, as it gives a bitter taste to the milk of cows which feed upon it. He adds, that the whole plant dyes a yellow colour, which by means of woad is afterwards made green; and Dr. Withering says the dyers prefer it to all other yellows for wool that is to be dyed green.

The seeds, in this species at least, are generally numerous, scarcely ever solitary, as described in the *Genera Plantarum*.



I. Fawcett del. 1792

A N C H U S A sempervirens.

Evergreen Alkanet.

P E N T A N D R I A Monogynia.

GEN. CHAR. *Corolla* funnel-shaped : its orifice closed with valves. *Seeds* hollowed out at the base.

SPEC. CHAR. Flower-stalks axillary, bearing little heads of flowers, accompanied by two leaves.

SYN. Anchusa sempervirens. *Linn. Sp. Pl.* 192. *Huds. Fl. An.* 80. *With. Bot. Arr.* 191. *Relb. Cantab.* 77. *Buglossum latifolium femper virens.* *Raii Syn.* 227.

NO plant can be more common than this is in waste ground in and about Norwich ; throughout most other parts of England it is rarely met with. The first flowers appear in May, and are followed by a long succession of others. They are beautiful in their form and colour when closely examined, otherwise the plant is of an unseemly appearance ; it is always, however, in leaf, and has from thence obtained the name of *sempervirens*, though perfectly herbaceous, and not at all shrubby. Its habit and generic characters approach nearly to those of *Myosotis*, the corolla being rather salver-shaped, than of the true funnel form of other species of *Anchusa*.

The leaves are very rough ; the juices of the plant mucilaginous, as in others of this tribe. We do not know of its being applied to any use.

45.



B A L L O T A nigra.*Black Horehound.***D I D Y N A M I A Gymnospermia.**

G E N . C H A R . *Calyx* nearly salver-shaped, with five teeth and ten ribs. *Upper lip* of the *Corolla* concave, notched.

S P E C . C H A R . Leaves heart-shaped, undivided, serrated. Divisions of the calyx tapering gradually to a point.

S Y N . *Ballota nigra.* *Linn. Sp. Pl.* 814. *Huds. Fl. An.* 260. *With. Bot. Arr.* 615. *Relb. Cantab.* 231.
Ballotte. *Raii Syn.* 244.

A B U N D A N T every where in hedges and waste ground, flowering throughout the summer very copiously. The whole herb has an uncommonly pungent disagreeable smell, and therefore promises to be useful in hysterick, and other nervous disorders. Accordingly we find a decoction of it recommended for such complaints in Ray's *Synopsis*.

The flowers are occasionally found white; and that variety has been mistaken by Mr. Hudson and others for the *Ballota alba* of Linnæus, which last we believe has never been found in England. It exists, however, in the Linnæan Herbarium, and will some time or other be figured by Dr. Smith, in his *Plantarum Icones*.



O P H R Y S Loefelii.

Dwarf Ophrys.

G R N A N D R I A Diandria.

G E N . C H A R . *Nectary* consisting of a lip only, slightly carinated at the back.

S P E C . C H A R . Bulb oval. Stalk naked, triangular. Lip roundish, concave, undivided. Petals linear. Leaves ovato-lanceolate.

S Y N . Ophrys Loefelii. *Linn. Sp. Pl.* 1341. *With. Bot. Arr.* 988.

O. lilifolia. Relb. Cantab. 337. *Huds. Fl. An.* 390. β .
Pseudo-Orchis bifolia palustris. Raii Syn. 382.

R A Y has mentioned this plant as the production of some moors in the neighbourhood of Cambridge: but those moors were long searched for it in vain by succeeding botanists, till the Rev. Mr. Relhan discovered it a very few years ago, growing, not very sparingly, where Ray has reported. This gentleman attributes its remaining so long latent, to its usual situation close to the stems of rushes. To him we are obliged for the plant we have figured. Mr. Pitchford many years ago found, in a meadow at St. Faith's, near Norwich, one single specimen, which he afterwards presented to the Rev. Mr. Lightfoot.

A confusion, which originated with Linnæus, has long existed between this plant and his *Ophrys lilifolia*. We can assure the public, on the authority of his herbarium, that the latter is only found in America, and that the European synonyms, which he has in several parts of his works applied to that species, really belong to ours. See several very good observations on this subject in the Botanical Arrangement, from Mr. Woodward and Dr. Stokes.



O P H R Y S Nidus avis.

Bird's-nest Ophrys.

G Y N A N D R I A Diandria.

GEN. CHAR. *Nectary* consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Bulbs in the form of fleshy clustered fibres. Stem clothed with scaly sheaths, without leaves. Nectary cloven.

SYN. *Ophrys Nidus avis.* *Linn. Sp. Pl.* 1339. *Huds. Fl. An.* 388. *With. Bot. Arr.* 983. *Rehb. Can-*
tab. 336.

Nidus avis. *Raii Syn.* 382.

THIS singular species of *Ophrys*, whose habit so nearly approaches the genus *Orobanche*, is probably like that genus parasitical. It is rather an unfrequent inhabitant of woods and thickets among decayed leaves, flowering in the early part of summer, and cannot be made to grow in a garden. Dr. Smith has found it in Norfolk, and it is often met with in Kent.

Its hue of sober brown is the opposite of the usual gaiety and brilliancy of the vegetable kingdom: but the scientific observer will consider it with admiration, as a plant whose appearance and economy are extremely singular; and the systematic botanist will cherish it as an important link in Nature's chain, combining several apparently discordant tribes.

48.



B E R B E R I S vulgaris.

*Common Barberry.**H E X A N D R I A Monogynia.*

GEN. CHAR. *Calyx* six-leaved. *Petals* six, with two glands at their base. *Style* none. *Berry* with two seeds.

SPEC. CHAR. Flowers in clusters. Spines three-forked. Serratures of the leaves terminated by soft bristles.

SYN. *Berberis vulgaris.* *Linn. Sp. Pl.* 471. *Huds. Fl. An.* 137. *With. Bot. Arr.* 366. *Relb. Cantab.*

134.

B. dumetorum. *Raii. Syn.* 465.

COMMON in hedges, flowering in June, and bearing its bright red pendulous berries in autumn. It is generally planted in shrubberies for ornament as well as use, the fruit being frequently introduced into pickles and preserves, on account of its strong and grateful acidity, of which the leaves also partake with a mixture of astringency.

Two circumstances in the history of this shrub deserve particular attention. In the first place, its stamens exhibit perhaps the most remarkable instance of irritability hitherto discovered in vegetables; because we perceive at once the purpose it is intended to answer. The bases of the filaments are so sensible to the touch of any extraneous body, that they immediately contract, with precipitation, and throw the pollen on the stigma; and this contraction is capable of being repeated several times. See Mr. Whately's remark in the *Bot. Arr.* and Dr. Smith's paper in the *Philosophical Transactions* for 1788, p. 158.

The other circumstance to which we allude is, its reputed hostility to corn, the ears of which, in its neighbourhood, are said always to prove abortive. This, if true, is one of the most wonderful properties that any plant ever possessed, and is totally unaccountable. We have it on such good authority, that we could not avoid mentioning the report; but on the other hand we have as good reasons for withholding our assent. Mons. Broussonet, the celebrated French naturalist, who has bent his attention particularly to agriculture, assures us this report, equally prevalent in France and in England, is, from his own observation, totally void of foundation. It is to be wished some scientific observer could trace out what occasioned the opinion.



LITERATURE

and the author's name, and the date of publication.

2. The title of the book or article, and the author's name.

3. The date of publication, and the place of publication.

4. The name of the publisher, and the name of the editor.

5. The name of the library, and the name of the author.

6. The name of the author, and the name of the editor.

7. The name of the author, and the name of the editor.

8. The name of the author, and the name of the editor.

9. The name of the author, and the name of the editor.

10. The name of the author, and the name of the editor.

11. The name of the author, and the name of the editor.

12. The name of the author, and the name of the editor.

13. The name of the author, and the name of the editor.

14. The name of the author, and the name of the editor.

15. The name of the author, and the name of the editor.

16. The name of the author, and the name of the editor.

17. The name of the author, and the name of the editor.

18. The name of the author, and the name of the editor.

19. The name of the author, and the name of the editor.

20. The name of the author, and the name of the editor.

21. The name of the author, and the name of the editor.

22. The name of the author, and the name of the editor.

23. The name of the author, and the name of the editor.

L A T H R Æ A Squamaria.

*Greater Tooth-wort.**D I D Y N A M I A Angiospermia.*

G E N . C H A R . *Calyx* four-cleft. A depressed *gland* at the base of the future of the germen. *Capsule* of one cell.

S P E C . C H A R . Stem perfectly simple. Flowers pendulous; their lower lip three-cleft.

S Y N . Lathræa Squamaria. *Linn. Sp. Pl.* 844. *Huds. Fl. An.* 266. *With. Bot. Arr.* 642.

Anblatum Cordi five Aphylion. *Raii. Syn.* 288*.

G A T H E R E D by the Earl of Gainsborough, in the neighbourhood of his Lordship's seat at Exton, near Stamford. The flowers appear in April, emerging from the decayed leaves of trees, among which the plant is mostly found half buried. The root is parasitical, and is generally attached to the roots of elms, hasels, or some other tree, in a shady situation.

Having lately (tab. 48.) given a figure of the *Ophrys Nidus* avis, we now exhibit the present plant as another of those connecting links which combine some families of vegetables in many respects differing widely from each other. By these two species we can trace a line of affinity between the *Didynamia Angiospermia* of Linnæus, and the natural order of *Orchideæ*.

The name *Tooth-wort* is derived from the resemblance of the scaly roots of this plant to the human fore-teeth; for which reason it *must* be good for the tooth-ach,

“ As wise philosophers have judg'd!”



A N E M O N E Pulsatilla.

*Pasque Flower.**POLYANDRIA Polygynia.*

GEN. CHAR. *Calyx* none. *Petals* six or nine. *Seeds* many.

SPEC. CHAR. Flower solitary, with an involucrum on its stalk. Petals erect. Seeds with tails. Leaves bipinnate, cut.

SYN. Anemone Pulsatilla. *Linn. Sp. Pl.* 759. *Huds. Fl. An.* 236. *Relb. Cantab.* 208. fig. *With. Bot. Arr.* 565.

Pulsatilla folio crassiore & majore flore. *Raii Syn.* 260.

PLENTIFUL in high chalky pastures in several parts of England, especially about Newmarket heath ; from whence our specimen was taken. It is a plant of great beauty, and thrives well in a garden in a dry soil. The flowers appear early in May. The silvery plumes of the seeds which succeed them are likewise a beautiful object.

The herb is so acrid as to blister the skin, like some species of *Ranunculus* ; but such blisters are far more difficult to heal than those raised by Spanish flies. Goats eat it, as they do many other acrid vegetables.

The foreign species of *Anemone* are but ill understood, though our four British ones are sufficiently distinguishable.



I B E R I S amara.

*Bitter Candy tuft.**TETRADYNA MIA Siliculosa.*

GEN. CHAR. *Corolla* irregular, the two external petals being the largest. *Pouch* with many seeds, notched.

SPEC. CHAR. Stem herbaceous. Leaves lanceolate, pointed, a little indented. Flowers racemose.

SYN. *Iberis amara.* *Linn. Sp. Pl.* 906. *Huds. Fl. An.* 285. *With. Bot. Arr.* 682.

BROUGHT from the fields about Wallingford, Berkshire, where it is very common, in July last, by Dr. Smith. The stems are diffuse, numerous, and are each terminated by a racemus or spike of flowers, which are copious, and of a bright unspotted white, so as to be very conspicuous at a distance. The beauty of this plant has indeed procured it a place in our gardens among other hardy annuals, where it grows much more luxuriantly than on its native chalky soil. The whole herb is nauseously bitter, as are several others of this genus.



MELAMPYRUM arvense.

*Purple Cow-wheat.**DIDYNAMIA Angiospermia.*

GEN. CHAR. *Calyx* four-cleft. Upper lip of the *Corolla* compressed, turned back at the margin. *Capsule* two-celled, oblique, bursting at one edge. *Seeds* two, gibbous.

SPEC. CHAR. Spikes conical, loose. Bracteas fringed with narrow taper teeth.

SYN. *Melampyrum arvense.* *Linn. Sp. Pl.* 842. *Huds. Fl. An.* 270. *With. Bot. Arr.* 638. *Dickson's Dried Plants,* No. 74.

M. purpurascente coma. *Raii Syn.* * 286.

THIS, though a rare plant, occurs occasionally in corn-fields in several parts of England, flowering in July and August. Our specimen came from Costesey, near Norwich, and was obligingly communicated by Mr. Pitchford. Few flowers excel it in beauty; nor is it much inferior in this respect to the *Melampyrum nemorosum*, of which Linnæus observes, with a kind of triumph, that it grows in Sweden, though not in England. We are scarcely, indeed, worthy to possess the *M. arvense*; for its charms, however striking, have never procured it admission into a flower-garden, though it may easily be raised from fresh seed on a dry gravelly soil. The root is annual. The seeds very much resemble grains of wheat.



CHRYSOSPLENIUM alternifolium.

*Alternate-leaved Golden Saxifrage.**DECANDRIA Diginia.*

GEN. CHAR. *Calyx* four or five-cleft, coloured. *Corolla* none. *Capsule* with two beaks, one cell, and many seeds.

SPEC. CHAR. Leaves alternate.

SYN. Chrysosplenium alternifolium. *Linn. Sp. Pl.* 569.

Huds. Fl. An. 179. *With. Bot. Arr.* 404.

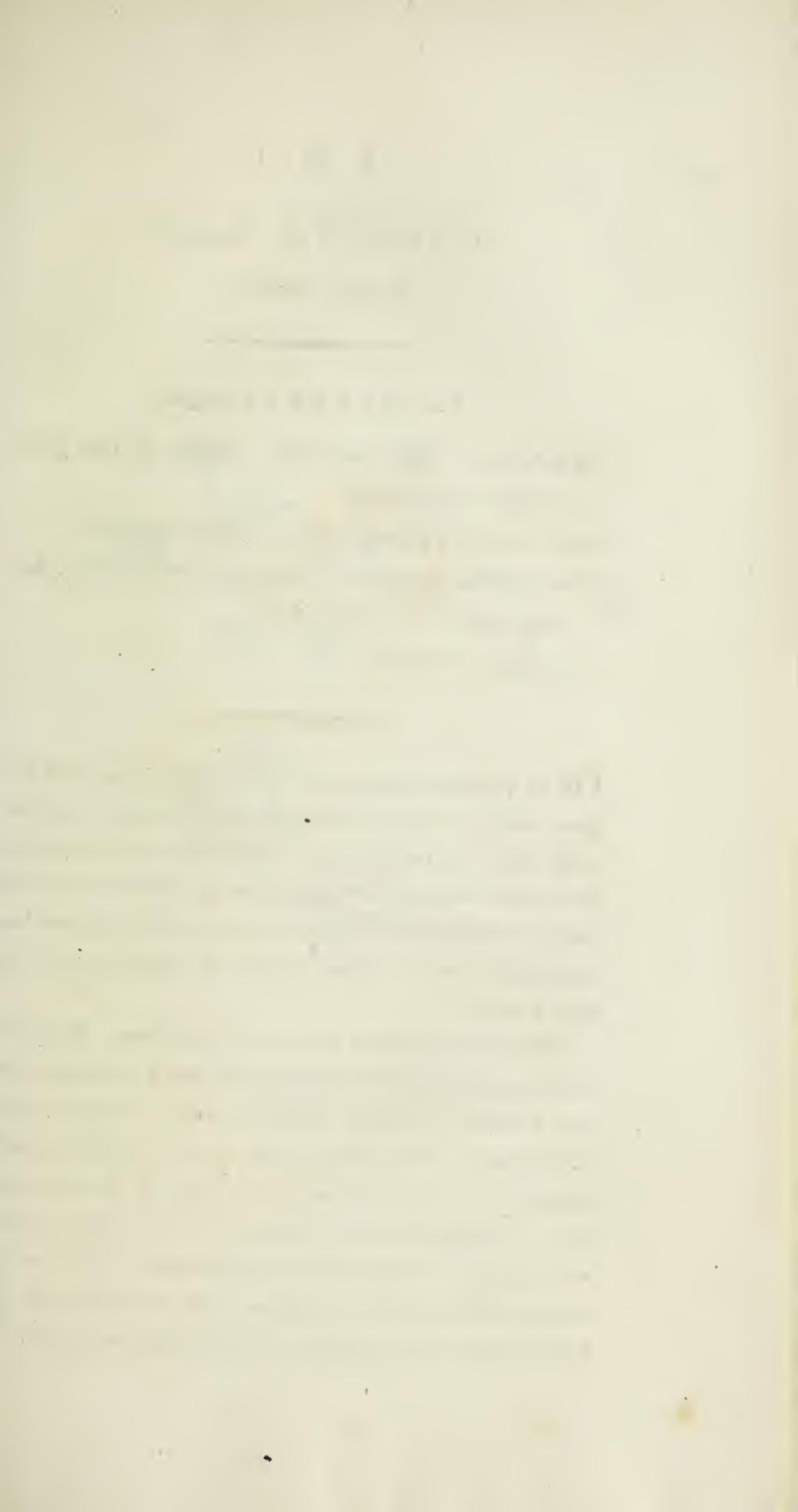
Saxifraga aurea foliis pediculis oblongis insidentibus.

Raii Syn. 158.

THE favourite situation of this plant is a black boggy soil in the margins of little rills in wet shady woods, where it is, though rarely, found, intermixed generally with the more common species of Chrysosplenium, which has opposite leaves. Both are conspicuous for their yellow hue, which discovers them at a distance. They flower early in May, and are perennial.

This species is the more striking of the two, being rather the largest. Its leaves are always alternate, one of them standing solitary about the middle of the stem, which is triangular; the rest are clustered, partly about the root, and partly near the flowers. The terminal or central flower is not so regularly five-cleft as to justify Linnæus in placing this genus in *Decandria* instead of *Oëtandria*, according to his principle in *Philosophia Botanica*, *sect.* 178. Dr. Stokes, therefore, removes it to the 8th class. We retain it in its old place for the convenience of those who use Linnæus's works, and especially on account of its near affinity to *Saxifraga*.





CUSCUTA Europæa.

Greater Dodder.

TETRANDRIA Digynia.

GEN. CHAR. *Calyx* four-cleft. *Corolla* of one petal.*Capsule* two-celled.

SPEC. CHAR. Flowers sessile, mostly four-cleft.

SYN. *Cuscuta Europæa*. *Linn. Sp. Pl.* 180. *With. Bot.**Arr. 165.**C. major*. *Raii Syn.* 281.

OF all parasitical plants, the Dodder tribe are the most singular, trusting for their nourishment entirely to those vegetables about which they twine, and into whose tender barks they insert small villous tubercles serving as roots, the original root of the Dodder withering away entirely as soon as the young stem has fixed itself to any other plant, so that its connexion with the earth is cut off.

The species of *Cuscuta* are very ill understood. Notwithstanding the doubts of Dr. Stokes in the *Bot. Arr.* whether the true Linnæan *C. Europæa* was ever found in England (the *C. Epithymum*, which has five-cleft flowers, being the most frequent), we think there can be no doubt of its being our plant. This specimen was gathered on the common heath, *Erica vulgaris*, on One-tree-hill at Greenwich. The flowers are generally found with 4 divisions, rarely occurring with 5. It may be met with plentifully in flower in July and August.



CENTAUREA Scabiosa.

*Greater Knapweed.**S Y N G E N E S I A Polygamia fructuosa.*

GEN. CHAR. *Receptacle* bristly. *Seed-wing* simple. *Corolla* of the radius funnel-shaped, irregular, longer than those of the disk.

SPEC. CHAR. Scales of the calyx fringed. Leaves pinnatifid, their segments lanceolate.

SYN. *Centaurea Scabiosa.* *Linn. Sp. Pl.* 1291. *Huds. Fl.*

An. 376. *With. Bot. Arr.* 945. *Relb. Cant.* 326.

Jacea major. *Raii Syn.* 198.

THE root is perennial. Stem about two feet high, erect, alternately branched, leafy, bearing at the end of each branch a solitary flower, the scales of whose calyx are triangular, acute, and ciliated or rather pectinated in the margin.

The greater knapweed grows throughout England, more rarely in Scotland, in the borders of fields, in meadows, by road-sides, and sometimes among corn, flowering in July and August. Ray says the flowers are sometimes white. We do not know of its being applied to any economical use. Small birds eat the seeds in winter. The permanent calyx in time becomes reflexed, and is very conspicuous at a distance, being of a most beautiful silvery hue.

56.



E R Y N G I U M campestre.

*Field Eryngio.*P E N T A N D R A *Digynia.*

GEN. CHAR. *Flowers* in little dense heads. *Receptacle* scaly.

SPEC. CHAR. Leaves embracing the stem, divided in a pinnated manner.

SYN. *Eryngium campestre.* *Linn. Sp. Pl.* 337. *Huds. Fl. An.* 110. *With. Bot. Arr.* 264.

E. vulgare. *Raii Syn.* 222.

ALTHOUGH very common on the continent, and therefore denominated *vulgare* by Bauhin, Camerarius, &c. this species is so very rare in England, that we cannot follow those British authors, however respectable, who name it *common Eryngio*. We are assured by the Rev. Mr. Wood, of Leeds, that it still grows by the Watling-street road, opposite Brookhall, near Daventry, as mentioned by Ray. Our figure was drawn from a garden specimen compared with a wild one, with which it perfectly agreed.

The root is perennial and strong. Stem a foot high, much branched. The whole plant very rigid, and of a pale green. It flowers in July and August. The petals are white or purplish.



V E R B A S C U M Lychnitis.*White Mullein.***P E N T A N D R I A** Monogynia.

G E N . C H A R . *Corolla* wheel-shaped, a little irregular.
Capsule with one cell, and two valves.

S P E C . C H A R . Leaves oblong-wedge-shaped, nearly smooth on the upper side.

S Y N . Verbascum Lychnitis. *Linn. Sp. Pl.* 453. *Huds. Fl. An.* 90. *With. Bot. Arr.* 225. β .

V. flore albo parvo. *Raii Syn.* 287.

GATHERED in lanes about Dartford in Kent, flowering in June. It loves a chalky soil, and is most frequent in that county.

Our specimens agree precisely with that in the Herbarium of Linnæus, which we learn, from certain marks and numbers, to be what he intended in the 1st edition of *Species Plantarum* for V. Lychnitis, though even in that work he seems to reckon our hoary yellow Mullein as the original species, making the white a variety.

This Mullein is remarkable for its straight, wand-like, angular stem; its leaves very white beneath, but green with a slight hoariness above; and its cream-coloured flowers, which are produced in great numbers in a compound, clustered, terminal racemus, one of the lateral branches of which is all our figure would admit.

The yellow hoary Mullein is surely a very distinct species, its leaves being, on both sides, covered with thick wool—not to mention other differences.



VERBASCUM nigrum.

Dark Mullein.

PENTANDRIA Monogynia.

GEN. CHAR. *Corolla* wheel-shaped, a little irregular.
Capsule with one cell, and two valves.

SPEC. CHAR. Leaves oblong-heart-shaped, on footstalks.

SYN. *Verbascum nigrum*. *Linn. Sp. Pl.* 253. *Huds. Fl. An.* 90. *With. Bot. Arr.* 226. *Relb. Cantab.* 88.

V. nigrum flore parvo, apicibus purpureis. Raii Syn.
 288.

BY what figure of speech this beautiful plant can be called *black*, not having a particle of that colour about it, we will not determine. All the old botanists, however, have so denominated it; and if they had any meaning, it can only have been that it was *not white*.

Its dark-green leaves are sometimes hoary beneath, especially the upper ones. The racemus of flowers is longer and more simple than in most of the other species. Nothing can be more elegant than the purple stamina contrasted with the yellow corolla.

This species loves a gravelly soil, and is not rare in Norfolk and Suffolk. It is very conspicuous at a distance under hedges in green shady lanes, to which it is a great ornament. The flowers appear about Midsummer, and last till September. The root is perennial.



C H L O R A perfoliata.

*Yellow Centaury.**O C T A N D R I A Monogynia.*

GEN. CHAR. *Calyx* eight-leaved. *Corolla* in eight segments. *Capſule* with one cell, two valves, and many seeds. *Stigma* four-cleft.

SPEC. CHAR. Leaves perfoliate.

SYN. Chlora perfoliata. *Linn. Syſt. Nat. Ed. 12. V. 2.*
267. *Huds. Fl. An. 168. With. Bot. Arr. 392.*
Relb. Cant. 157.

Centaurium luteum perfoliatum. *Raii Syn. 287.*

A Chalky or lime-stone foil generally produces this plant in several parts of England, especially in open, hilly situations; as Cambridgeshire, Worcestershire, about Bristol Hot-wells, and the chalky parts of Norfolk and Suffolk. It does not thrive well in a garden, and though rather impatient of cold, yet if sheltered, it becomes mildewed. The root is annual; the whole plant generally very glaucous, and somewhat succulent, very bitter to the taste. Its bright and elegant flowers appear in July and August.

Those who have placed Chlora in the order *Digynia* are undoubtedly mistaken, as the style is really simple, though the stigma be 4-cleft, which last is the most essential diagnostic of the genus.



DIANTHUS deltoides.

*Maiden Pink.**DECANDRIA Digynia.*

GEN. CHAR. *Calyx* cylindrical, of one leaf, with about four scales at the base. *Petals* five, furnished with claws. *Capsule* cylindrical, one-celled.

SPEC. CHAR. Flowers solitary. Two lanceolate scales only to each calyx. Corolla notched.

SYN. *Dianthus deltoides*. *Linn. Sp. Pl.* 588. *Huds. Fl. An.* 184. *With. Bot. Arr.* 441. *Relb Cant.* 167. *Caryophyllus minor repens nostras*. *Raii Syn.* 335.

FOUND on sandy banks and heaths in various parts of England, growing prostrate among grass and other herbs, for want of the natural shelter of which in a garden, it is not easily cultivated. It begins flowering in July, and lasts till very late in Autumn. The petals vary much in colour, being sometimes of a very pale flesh colour, sometimes deep red, but are always marked with a ring of deeper red dots, near the centre of the flower.

Mr. Hudson's variety β has white flowers, with a beautiful purple ring, and leaves rather more glaucous than in the common kind here figured. That variety is the true *Dianthus glaucus* of Linnæus, and perhaps of Lightfoot, which, though common in gardens, we have never yet met with wild in England. It seems, however, no more than a variety. It has indeed generally four scales to the calyx, and so has frequently *D. deltoides*. Mr. Hudson's *D. glaucus* is a very different plant, see *tab. 62*.



DIANTHUS cæsius.

*Mountain Pink.**DECANDRIA Digynia.*

GEN. CHAR. *Calyx* cylindrical, of one leaf, with about four scales at the base. *Petals* five, furnished with claws. *Capsule* cylindrical, one-celled.

SPEC. CHAR. Stems mostly single-flowered. Scales of the calyx roundish and short. Petals notched, bearded. Leaves rough in the margin.

SYN. *Dianthus virgineus* β. *Linn. Sp. Pl.* 590.
D. glaucus. *Huds. Fl. An.* 185.

Armeriae species flore in summo caule singulari. *Raii Syn.* 336.

WE believe this plant has never yet been found in any part of Great-Britain, except on Cheddar rocks, Somersetshire, where it was gathered in Ray's time by Mr. Brewer, and since by the Rev. Mr. Lightfoot, and some other botanists. The flowers appear in July, and are highly fragrant.

The whole history of this species in English writers is a heap of confusion. Dr. Stokes alone has formed any tolerable conjectures on the subject. The error originated with Linnaeus, who quoted Dillenius's excellent figure (*Hort. Elth.* t. 298, f. 385.) as a variety of his *D. virgineus*, with which it has no affinity. Mr. Hudson unluckily increased the confusion, by taking it for *D. glaucus*. We are happy to clear up the point by means of wild and original specimens, and to give, from Dr. Smith's manuscripts, a new specific character, which, if attended to, will be found abundantly sufficient to distinguish this from every other *Dianthus* hitherto known. The trivial name *cæsius* is taken from the character given by Dillenius, and alludes to the bluish green of the leaves.

The roots are woody and perennial, and thrive best in a dry or somewhat sandy soil.



T U L I P A sylvestris.

Wild Tulip.

H E X A N D R I A Monogynia.

GEN. CHAR. *Corolla* of six petals, bell-shaped. *Style* none.

SPEC. CHAR. Flower solitary, somewhat drooping. Leaves lanceolate. Stigma obtuse, triangular. Stamina hairy near the base.

SYN. *Tulipa sylvestris*. *Linn. Sp. Pl.* 438. *Fl. Suec.* N. 284.

NO writer on British plants has hitherto noticed the wild Tulip; but we are encouraged to give it as a native, or at least a naturalized species, by the observations of the Rev. Mr. Mathew, who favoured us with this specimen from an old chalk-pit near Bury; as well as by the opinion of the late very accurate and learned Mr. Rose of Norwich, and of Dr. Smith, who have both found it in a chalk-pit near that city. It grows in a bed of good mould, above the chalk, the roots lying several inches below the surface, and flowers in April.

The circumstances most remarkable about this species, and which abundantly distinguish it from the garden *Tulipa Gesneriana*, are the narrow leaves, the nodding flower, the hairiness at the base of the stamens, and on the tips of the petals, and especially the simple, obtuse form of the stigma, which is totally different from that of the garden tulip. The flower too is fragrant, and the pollen yellow, not black. The anthers are remarkably long. In *Flora Danica*, t. 375, they are represented short and round. Linnæus has given an excellent concise history of this plant, in his *Flora Suecica* above quoted.

63.



O P H R Y S muscifera.

*Fly Orchis.**G R N A N D R I A Diandria.*

GEN. CHAR. *Nectary* consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Bulbs roundish. Stem leafy. Lip somewhat convex, downy above, in four straight divisions.

SYN. *Ophrys muscifera*. *Huds. Fl. An.* 391. *Rehb. Cant.* 339.

O. myodes. *With. Bot. Arr.* 992.

O. insectifera α (*myodes*). *Linn. Sp. Pl.* 1343.

O. myodes major. *Raii Syn.* 379.

FOUND in meadows and pastures in a chalky soil, but not very common. It is most plentiful in Kent and Cambridgeshire, and has also been gathered near Taconestone church in Norfolk, and about Bungay in Suffolk; flowering in May and June.

No wonder the fly, the bee, and the spider orchis should have engaged the attention of all who were curious about plants. Their singularity and beauty are almost unrivalled. Linnæus, misled by the variations to which some of this tribe are really subject, has perhaps too rashly esteemed all those which resemble insects, as forming only one species. Yet surely nothing can be more distinct than the kind here figured, nor is any one more constant, not only in form, but even in colour.

Dr. Stokes is certainly right in his judgment concerning the trivial name of this plant (*Bot. Arr.* 992); but in unimportant matters strict propriety is sometimes obliged to give way to common custom.



O P H R Y S aranifera.

*Spider Orchis.**G Y N A N D R I A Diandria.*

GEN. CHAR. *Nectary* consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Bulbs roundish. Stem leafy. Lip roundish, convex, hairy above, in three divisions, turned in at the margin, and notched at the tip.

SYN. *Ophrys aranifera.* *Huds. Fl. An.* 392. *With. Bot. Arr.* 994. *Relb. Cant.* 340.

Orchis five *Testiculus* *sphegodes* *hirsuto* *flore.* *Raii Syn.* 380.

THIS, with us the most uncommon of the insect-bearing Orchises, was gathered near Bury by Sir T. G. Cullum, Bart. as well as by the Rev. Mr. Mathew; and we are obliged to both these gentlemen for fine specimens of it, flowering in April. Mr. Jacob Rare, of Bolt-court, Fleet-street, to whom we have likewise been indebted for a specimen of *Lathraea Squamaria* found near London, brought us the Spider *Ophrys* from Kent. It is also found in Cambridgeshire, always in a chalky soil, and varying much as to the number of flowers. This more nearly approaches the Bee Orchis than the Fly, but essentially differs from it in having the great middle lobe of the *nectary* simply notched, and not ending in three recurved points; besides its flowering two or three months earlier, and having the column of the fructification thicker, shorter, and of a different figure, when accurately compared with the other species. The *Ophrys arachintes* of Linnæus appears, from his herbarium, to be a different plant from ours, aving a lip more like that of the *apifera*.



P A P A V E R *cambricum.**Yellow Poppy.**P O L Y A N D R I A Monogynia.*GEN. CHAR. *Calyx* two-leaved. *Corolla* of four petals.*Capsule* one-celled ; discharging its seeds by pores under the stigma.

SPEC. CHAR. Capsules smooth, oblong. Stem many-flowered, smooth. Leaves pinnated, jagged.

SYN. *Papaver cambricum.* *Linn. Sp. Pl.* 727. *Huds. Fl. An.* 231. *With. Bot. Arr.* 553.*P. luteum perenne, laciniatum folio, Cambrobritannicum.* *Raii Syn.* 309.

SAID to be very common on the Welch mountains, and not unfrequent in Westmoreland. Dr. Smith has gathered it about Kendal and Kirkby-Lonsdale, in strong, moist, and shady places. With his wild specimens we have compared that here figured ; for which we are obliged to the Rev. Dr. Good-enough, who favoured us with it from his garden. Dillenius, in his excellent history of this plant (*Hort. Elth.* 301, t. 223), asserts, that it becomes larger and less glaucous by culture : but we are assured it is often full as luxuriant in its native soil ; which indeed is generally the case with the vegetable productions of rich or moist alpine situations.

The root is perennial ; the flowers last from June to the middle of August. The whole plant is of a tender, pale, and somewhat succulent habit, not unlike the Celandine, but more delicate.

60.



C O R I A N D R U M sativum.

*Coriander.*P E N T A N D R I A *Digynia.*GEN. CHAR. *Corolla* radiate; *petals* inflexed, cloven.*General Involucrum* of one leaf; *partial ones* going but half way round. *Fruit* sphærical.

SPEC. CHAR. The two feeds combining to make one uniform globe.

SYN. *Coriandrum sativum.* *Linn. Sp. Pl. 367.* *Huds.**Fl. An. 123.* *With. Bot. Arr. 302.**Coriandrum.* *Raii Syn. 221.*

CORIANDER is supposed to be a native of the south of Europe, and from having been cultivated in England as a medicinal plant, to have become naturalized in some parts of the kingdom, particularly in fields about Ipswich.

The root is annual; lower leaves lobed and cut; upper ones in very fine linear alternate segments; flowers white or reddish, appearing in June; and the seeds are ripe in July and August. The aromatic flavour of the latter is agreeable to most palates; and we are obliged to Dr. Withering, for rescuing them from the charge of unwholesomeness (*Bot. Arr.*). All the rest of the plant is, when bruised, abominably foetid.



I N U L A crithmoides.

Sampshire-leaved Fleabane.

S Y N G E N E S I A Polygamia superflua.

GEN. CHAR. *Receptacle* naked. *Seed-down* simple.

Antheræ terminated by two bristles at the base.

SPEC. CHAR. Leaves linear, fleshy, generally three-pointed.

SYN. *Inula crithmoides.* *Linn. Sp. Pl.* 1240. *Huds.*
Fl. An. 369. *I. crithmifolia.* *With. Bot. Arr.* 924.

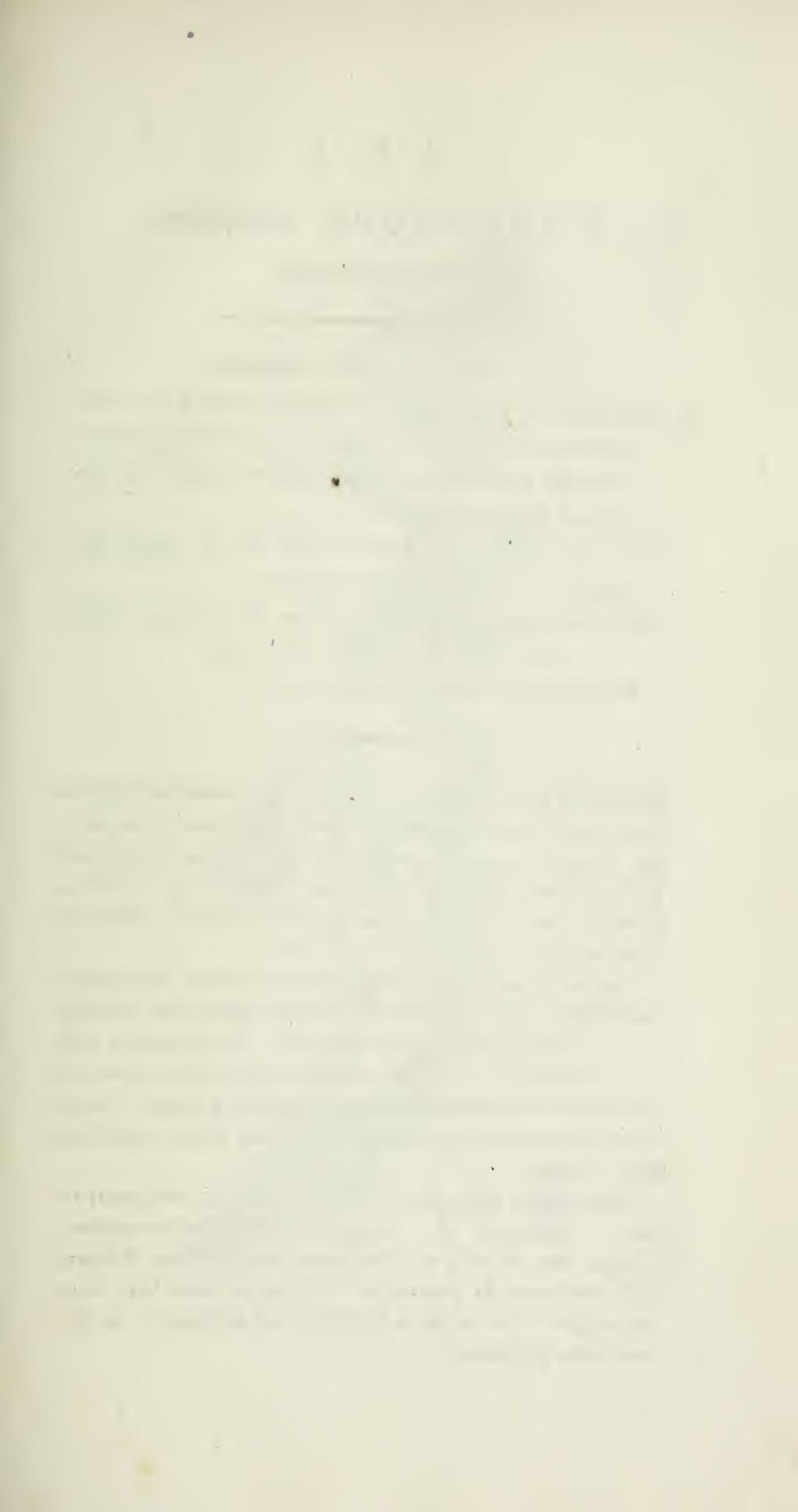
Aster maritimus flavus, *Crithmum chrysanthemum*
dictus. *Raii Syn.* 174.

THIS is one of those maritime plants which prefer a muddy soil, and is therefore not common. The Reverend Mr. Baker favoured us with this specimen from Portland island, near the light-houses. It flowers in August.

The root is perennial, creeping, and its long fibres run down deep into the mud. Leaves alternate, smooth, very succulent, and salt to the taste; the lowermost blunt and entire; the others generally having a tooth on each side the tip, though many of the upper leaves are often quite entire. The flower-stalks, clothed with narrow bristly bractæ, and swelling upwards, terminate the branches; and each bears a solitary erect flower, of a beautiful appearance, having yellow rays and an orange disk. Mr. Woodward well observes that the down of the seed is finely dentated. Indeed that part is scarcely quite simple in any flower, only in some genera the teeth are much longer than in others, so that the down becomes compound or plumose.

We do not know that this plant is applied to any use. It probably would afford an alkaline salt, like most other succulent sea plants. It is remarkable that such vegetables generally retain their salt taste, even when cultivated far from the sea.





MONOTROPA hypopithys.

*Yellow Bird's-nest.**DECANDRIA Monogynia.*

GEN. CHAR. *Calyx* none. *Petals* ten; the five outermost hollowed at the base, and producing honey. *Capsule* five-valved. *These numbers respect the terminal flower only.*

SPEC. CHAR. Lateral flowers with six or eight stamina, the terminal one with ten.

SYN. *Monotropa hypopithys.* *Linn. Sp. Pl.* 555. *Huds. Fl. An.* 175. *With. Bot. Arr.* 424.

Hypopithys lutea. *Raii Syn.* 317.

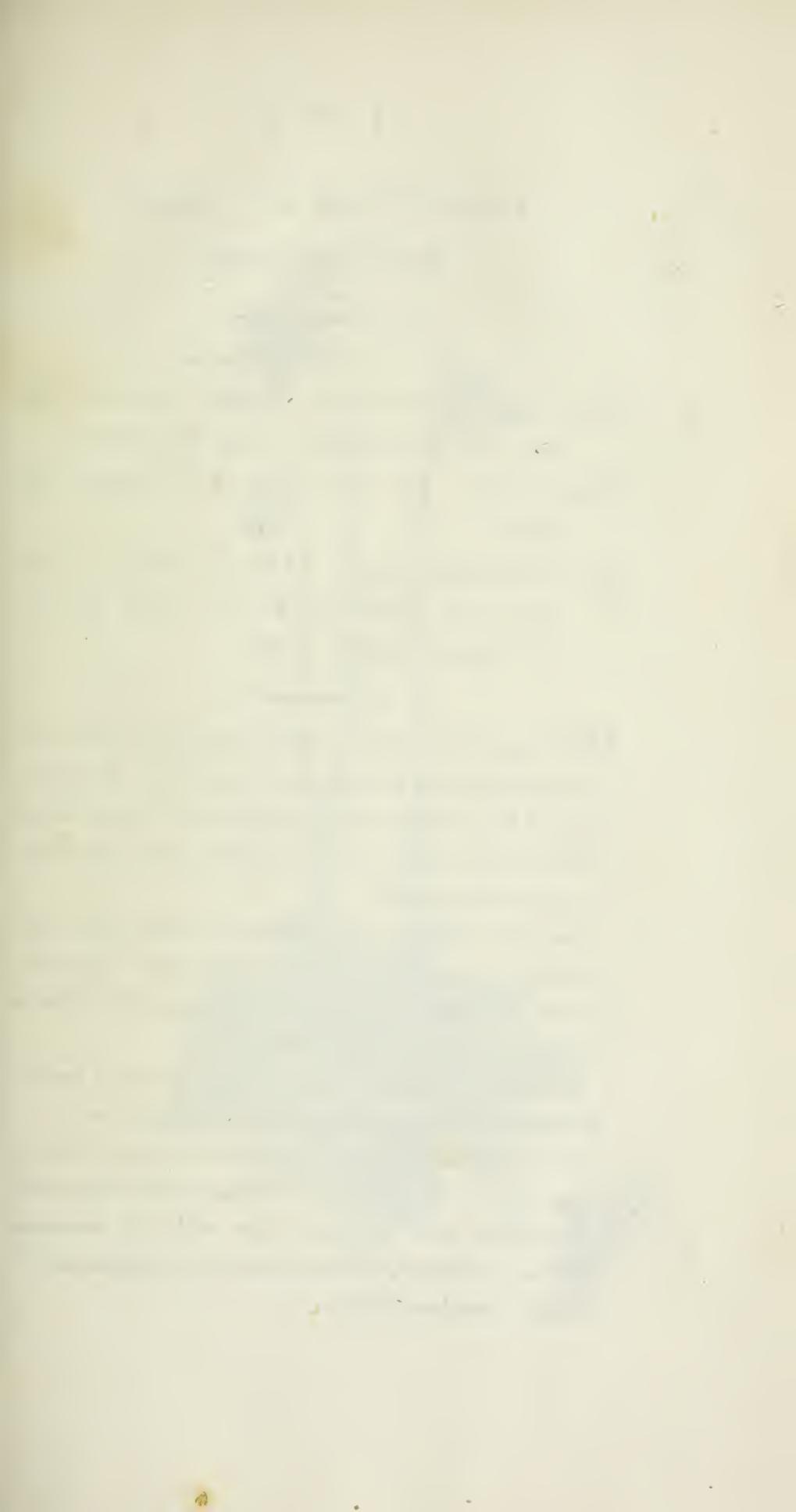
BEECH and Fir woods in the midland counties of England produce this singular vegetable in abundance, flowering in June. Mr. Wagstaff communicated our present specimen, gathered by Mrs. Hannah Kett in a pine grove at Stoke near Norwich, in which spot the *Monotropa* was discovered in 1782, and never before in that county.

The root is parasitical, fibrous, and very slender. Stem thick and fleshy, covered, especially in the lower part, with scattered scales, which supply the place of leaves. Every part, as well as the flowers, is of a pale straw-colour, turning brownish when arrived at maturity, and then acquiring a fragrant smell, generally compared to primrose roots, but rather resembling those flowers.

The terminal flower, from which Linnæus, in conformity to his own principles, takes his generic and classical characters, is larger than the rest, and has pretty constantly ten stamina, with other parts in proportion. The lateral ones have from six to eight. The corolla is irregular, and deciduous; the stamina more permanent.

69.





P I N G U I C U L A vulgaris.

*Common Butter-wort.**D I A N D R I A Monogynia.*

GEN. CHAR. *Cerolla* ringent, spurred. *Calyx* two lipped, with five segments. *Capsule* of one cell.

SPEC. CHAR. Spur cylindrical, and as long as the petal.

SYN. *Pinguicula vulgaris*. *Linn. Sp. Pl. 25. Huds. Pl. An. 8. Wthb. Bot. Arr. 16. Relb. Cant. 8.*

*P. Gesneri. Raii Syn. * 281.*

ON bogs in the northern counties abundantly, also in Norfolk and other parts of England more sparingly. It is perennial, and flowers in the early part of summer. We are obliged for this specimen to Mr. Robson of Darlington, a very assiduous and accurate botanist.

The leaves are remarkably glutinous on their upper side, and afford a good example of an involuted margin. The structure of the stigma, and its close application to the stamens in this genus, are very remarkable.

Butterwort is accused of causing the rot in sheep; but Dr. Withering assures us no cattle whatever will feed upon it.

"The husbandmen's wives of Yorkshire do use to anoint the
"dugs of their kine with the fat and oilous juyce of the herbe
"butterwort, when they are bitten with any venomous
"worme, or chapped, rifted and hurt by any other meanes"—
as Master Gerarde testifieth.



O P H R Y S monorchis.

*Musk Orchis.**GYNANDRIA Diandria.*

GEN. CHAR. Nectary consisting of a lip only, slightly carinated at the back.

SPEC. CHAR. Bulb globose. Stalk naked. Lip of the nectary three-cleft, as well as the inner petals.

SYN. Ophrys Monorchis. *Linn. Sp. Pl.* 1342. *Huds. Fl. An.* 390. *With. Bot. Arr.* 990. *Relh. Cant.* 338.

Orchis odorata moschata five Monorchis. *Raii Syn.* 378.

GROWS in dry chalky pastures. We have received it from Kent by favour of Mr. Jacob Rayer, and from the neighbourhood of Bury gathered by W. Matthew, Esq. The last-mentioned gentleman suspects the radical leaves do not appear till within fifteen or twenty days of its flowering, which happens early in July.

This species is remarkable for having apparently but one bulb, whence the name *monorchis*. The bulb for the following year being formed at the end of one of the radical fibres, and making but small progres till the flowering of its parent root is over, has generally escaped notice.

The flowers have a musky honey-like smell. It is one of the least specious of its tribe, and may easily be overlooked.

In this plant the nectary is a little gibbous at the back part, so as somewhat to approach the character of *Satyrion*; nor is its habit far remote from *Satyrion albidum* and *repens*.



M A L A X I S paludososa.

*Marsh Tway-blade.**G Y N A N D R I A Diandria.*

GEN. CHAR. *Nectary* of one hollow, heart-shaped, erect leaf, embracing the organs of fructification. *Corolla* reversed.

SPEC. CHAR. Stalk pentagonal. Leaves several, spatulate, rough at the tip.

SYN. *Malaxis paludososa.* *Swartz, Stockholm Trans. for 1789, p. 127. t. 6. f. 2.*

Ophrys paludososa. *Linn. Sp. Pl. 1341. Hudf. Fl. An. 389. With. Bot. Arr. 989. Relb. Cant. 337. Rose's Elem. (App.) 450. t. 2. f. 3.*

Orchis minima bulbosa. *Raii Syn. 378.*

A NATIVE of turf-y bogs on the north side of Norwich, and in some other parts of England; communicated from the neighbourhood of Potton, Bedfordshire, by the Rev. Mr. Charles Abbot of Bedford. It flowers in July, and is the smallest British plant of this tribe.

However averse to unnecessary innovation, it is impossible to refuse our assent to the establishment of this genus as characterised by Dr. Swartz; happy would it be if every genus in Orchideæ were as clear. Yet it appears that able botanist has not paid due attention to the corolla being reversed (*refupinata*); the odd petal (of the three external ones) being the lowermost (1), which is what has hitherto been erroneously called the lip. The most striking character of *Malaxis* consists therefore in the two erect petals at the top (2) instead of the solitary one of all other *Orchideæ*, at least the European ones. The *nectary* (3) moreover points upward, and embraces the stamens and style. No. 4 represents the stamens and their cover separated, and much more magnified than the other parts.

To this genus certainly belongs *Ophrys monophyllos* *Linn.* but surely Dr. Swartz is mistaken in referring to it also *O. liliifolia* and *Loefelii* (see our tab. 47), which resemble it in habit only.

The disputed synonym in Ray's *Synopsis* 385. No. 3, and *Pluk. Phyt.* t. 247. f. 2. *Ophrys palustris* of Hudson's first edition, has certainly nothing to do with our plant. May it not be *O. Loefelii*? See *Bot. Arr.* 989, 990.



INDEX OF THE ENGLISH NAMES

IN VOL. I.

	Tab.		Tab.
ALKANET , evergreen	45	Orchis , aromatic	10
Barberry	49	—— butterfly	22
Bell-flower , nettle-leaved	12	—— dwarf	18
—— spreading	42	—— fly	64
Bird's eye	6	—— green man	29
—— nest	48, 69	—— lizard	34
Borage	36	—— military	16
Butter-wort	70	—— musk	71
Calathian violet	20	—— spider	65
Candy-tuft , bitter	52	Paris , herb	7
Centaury , yellow	60	Pasque-flower	51
Chickweed , umbelliferous	27	Pink , maiden	61
Cinquefoil , spring	37	—— mountain	62
Coriander	67	Poppy , mongrel	43
Cowslip	5	—— yellow	66
Cow-wheat , crested	41	—— yellow horned	8
—— purple	53	Primrose	4
Daffodil , common	17	Saltwort , black	13
Dodder , greater	55	Satyrion , lizard	34
Eryngo , field	57	Saw-wort	38
Flax , perennial	40	Saxifrage , golden	54
Fleabane , samphire-leaved	68	—— purple	9
Gentian , marsh	20	—— yellow mountain	39
Globe-flower	28	Snowdrop	19
Greenweed , dyers	44	Speedwell , spiked	2
Groundsel , stinking	32	—— trifid	26
Heath , Cornish	3	—— vernal	25
—— Irish	35	Squill , two-leaved	24
Horehound	46	—— vernal	23
Jacob's ladder	14	Squinancy-wort	33
Knapweed , greater	56	Star of Bethlehem , yellow	21
Ladies slipper	1	Toothwort , greater	50
Meadow-rue , lesser	11	Tulip , wild	63
Mullein , white	58	Tway-blade , marsh	72
—— dark	59	Vetch , spring	30
Ophrys , bird's-nest	48	—— tufted horseshoe	31
—— dwarf	47	Wintergreen , chickweed	15

SYNONYMS TO BE ADDED.

ORCHIS militaris, t. 16.

O. magna, latis foliis, galea fusca vel nigricante. *Raii Syn.* 378.

NARCISSUS pseudo-narcissus, t. 17.

N. sylvestris pallidus, calyce luteo. *Raii Syn.* 371.

ORCHIS ustulata, t. 18.

O. pannonica 4. *Raii Syn.* 377.

S Y S T E M A T I C A L I N D E X

T O V O L . I.

<i>Diandria.</i>		Tab.	Saxifraga oppositifolia — alzoides Dianthus deltoides — cæsius	Tab.
V ERONICA spicata	-		2	
— triphyllos	-	26		39
— verna	-	25		61
Pinguicula vulgaris	.	70		62
<i>Triandria.</i>				
Holosteum umbellatum	.	27	Potentilla verna	37
<i>Tetrandria.</i>				
Asperula cynanchica	-	33	Chelidonium Glaucium	8
Cuscuta europaea	-	55	Papaver hybridum	43
<i>Pentandria.</i>			— cambricum	66
Anchusa sempervirens	-	45	Anemone Pulsatilla	51
Borago officinalis	-	36	Thaliætrum minus	11
Primula vulgaris	-	4	Trollius europæus	28
— veris	-	5	<i>Didynamia.</i>	
— farinosa	-	6	Ballota nigra	46
Polemonium cæruleum	-	14	Lathræa Squamaria	50
Campanula patula	-	42	Melampyrum cristatum	41
Trachelium	-	12	— arvense	53
Verbascum Lychnitis	-	58	<i>Tetradynamia.</i>	
— nigrum	-	59	Iberis amara	52
Glaux maritima	-	13	<i>Diadelphia.</i>	
Gentiana Pneumonanthe	-	20	Genista tinctoria	44
Eryngium campestre	-	57	Vicia lathyroides	30
Coriandrum sativum	-	67	Hippocrepis comosa	31
Linum perenne	-	40	<i>Syngenesia.</i>	
<i>Hexandria.</i>			Serratula tinctoria	38
Galanthus nivalis	-	19	Senecio viscosus	32
Narcissus pseudo-narcissus	-	17	Inula crithmoides	68
Tulipa sylvestris	-	63	Centaurea Scabiosa	56
Ornithogalum luteum	-	21	<i>Gynandria.</i>	
Scilla bifolia	-	24	Orchis bifolia	22
— verna	-	23	— ustulata	18
Berberis vulgaris	-	49	— militaris	16
<i>Heptandria.</i>			— conopsea	10
Trientalis europaea	-	15	Satyrion hircinum	34
<i>Octandria.</i>			Ophrys Nidus-avis	48
Erica Dabeoci	-	35	— Loefelii	47
— vagans	-	3	— monorchis	71
Chlora perfoliata	-	60	— anthropophora	29
Paris quadrifolia	-	7	— muscifera	64
<i>Decandria.</i>			— aranifera	65
Monotropa hypopithys		69	Malaxis paludosa	72
Chrysosplenium alternifolium		54	Cypripedium Calceolus	1

A L P H A B E T I C A L I N D E X

T O V O L . I.

	Tab.		Tab.
A NCHUSA sempervirens	45	Ophrys anthropophora	29
Anemone Pulsatilla	51	— aranifera	65
Asperula cynanchica	33	— Leefelii	47
Ballota nigra	46	— monorchis	71
Berberis vulgaris	49	— muscifera	64
Borago officinalis	36	— Nidus-avis	48
Campanula patula	42	Orchis bifolia	22
— Trachelium	12	— conopsea	10
Centaurea Scabiosa	56	— militaris	16
Chelidonium Glaucium	8	— ustulata	18
Chlora perfoliata	60	Ornithogalum luteum	21
Chrysoplénium alternifolium	54	Papaver cambricum	66
Coriandrum sativum	67	— hybridum	43
Cuscuta europaea	55	Paris quadrifolia	7
Cypripedium Calceolus	1	Pinguicula vulgaris	70
Dianthus cæsius	62	Polemonium cæruleum	14
— deltoides	61	Potentilla verna	37
Erica Dabeoci	35	Primula farinosa	6
— vagans	3	— veris	5
Eryngium campestre	57	— vulgaris	4
Galanthus nivalis	19	Satyrium hircinum	34
Genista tinctoria	44	Saxifraga aizoides	39
Gentiana Pneumonanthe	20	— oppositifolia	9
Glaux maritima	13	Scilla bifolia	24
Hippocrépis comosa	31	— verna	23
Holosteum umbellatum	27	Senecio viscosus	32
Iberis amara	52	Serratula tinctoria	38
Inula crithmoides	68	Thalictrum minus	11
Lathræa Squamaria	50	Trentalis europaea	15
Linum perenne	40	Trollius europaeus	28
Malaxis paludosa	72	Tulipa sylvestris	63
Melampyrum arvense	53	Verbascum Lychnitis	58
— cristatum	41	— nigrum	59
Monotropa hypopithys	69	Veronica spicata	2
Narcissus pseudo-narcissus	17	— triphylllos	26
		— verna	25
		Vicia lathyroides	30

E R R A T A.

No. 65 line 28 for *aracbintes* read *arachnites*.
 66 — 15 --- *strong* — *flony*.



